Mark-Recapture Studies of Taku River Adult Sockeye Salmon Stocks from 1998 to 2002

James E. Andel
Ian M. Boyce

December 2004

Pacific Salmon Commission
Technical Report No. 14

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Pacific Salmon Commission
600 - 1155 Robson Street
Vancouver, B.C.
V6E 1B5
(604) 684-8081

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Mark-Recapture Studies of Taku River Adult Sockeye Salmon Stocks from 1998 to 2002

Prepared by:

James E. Andel and [1] Ian M. Boyce[2]

Prepared for:

Pacific Salmon Commission
Transboundary Technical Committee

December 2004

[1] Alaska Department of Fish and Game, Division of Commercial Fisheries, P.O. Box 240020, Douglas, Alaska 99824
[2] Fisheries and Oceans Canada, Yukon/Transboundary Area, 100-419 Range Road, Whitehorse, Yukon Territory. Y1A 3V1

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AUTHORS

James E. Andel is the Assistant Transboundary Research Biologist for the Alaska Department of Fish and Game, Division of Commercial Fisheries, P.O. Box 240020, Douglas, Alaska 99824. Voice: 907-465-4396, FAX: 907-465-4944, e-mail: jim_andel@adfg.state.ak.us.

Ian M. Boyce is the Taku River Stock Assessment Biologist for Fisheries and Oceans Canada, Yukon/ Transboundary Area, 100-419 Range Road, Whitehorse, Yukon Territory, Y1A 3V1. Voice: 867-393-6739, FAX: 867-393-6738, e-mail: boycei@pac.dfo-mpo.gc.ca

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ABSTRACT

Annual mark-recapture studies of adult Taku River sockeye salmon (*Oncorhynchus nerka*) stocks were conducted by the Alaska Department of Fish and Game, the Canadian Department of Fisheries and Oceans, and the Taku River Tlingit First Nation from 1998 to 2002. The objectives of the program were: to provide annual inseason estimates of the inriver abundance of sockeye salmon and to document biological characteristics (migratory timing, migratory rates and age, sex, and size composition) of Taku River sockeye stocks. Marked-to-unmarked ratios of salmon harvested in the Canadian inriver gillnet fisheries were used to develop the estimates of the inriver abundance of sockeye. During the years 1998 to 2002, an annual average of 5,349 sockeye salmon were tagged in fish wheels located at Canyon Island, Alaska, of which an average of 1,080 (20.2%) sockeye were subsequently recovered in fisheries or on the spawning grounds. The annual post-season inriver run estimates of sockeye salmon past Canyon Island from 1998 to 2002 was estimated to be 91,548, 113,705, 115,693, 192,269, and 135,233, fish respectively. Annual inriver Canadian commercial, aboriginal and test fisheries combined harvested 19,038, 20,681, 27,942, 47,998, and 31,053 sockeye salmon during those same years (1998 to 2002). The resulting annual spawning escapement estimates for Taku River sockeye salmon from 1998 to 2002 was 72,271, 95,562, 87,298, 144,071, 103,343, fish respectively. The migratory timing (mean dates and standard deviation of migration) and run timing of the sockeye salmon run was similar to the 15 year average. The Kuthai Lake sockeye salmon stocks dominated the early portion, the Little Trapper Lake the middle portion, and the Tatsamenie Lake and mainstem stocks the late portion of the Taku River sockeye salmon run. Pink fish wheel catches were strong in 1998 and 1999 but below average in 2000 to 2002. Chum salmon fish wheel catches for this 5-year period continued to exhibit the trend of low catches that began in the mid-1980's.

KEY WORDS: mark-recapture, stratified population estimations, escapement estimation, migratory timing, Taku River, transboundary river, salmon, fish wheel, age, length and sex composition, Pacific Salmon Treaty

INTRODUCTION

Inseason estimates of the spawning escapement of Taku River sockeye *Oncorhynchus nerka* are needed to fulfill the escapement goal and international harvest sharing requirements for stocks specified by the U.S./Canada Pacific Salmon Treaty. The Taku River mark-recapture project has been conducted annually since 1984 (Clark et al. 1986; McGregor and Clark 1987, 1988, 1989; McGregor et al. 1991; Kelley and Milligan 1999) as a joint Canada/U.S. program involving the Alaska Department of Fish and Game (ADF&G) and Division of Fisheries and Oceans Canada (DFO) to provide weekly estimates of the Taku River salmon escapement past Canyon Island, Alaska (Figure 1). The Taku River Tlingit First Nation (TRTFN) began providing a technician to assist with operations in 1994. U.S. and Canadian fishery managers use CPUE and stock composition data from the U.S. District 111 and Canadian Taku River commercial gillnet fisheries and escapement estimates from this project to adjust fishing times, catches, and escapements.

The Taku River is a transboundary river which originates in northern British Columbia and flows southwest through the Coastal Mountain Range and Southeast Alaska to the Pacific Ocean (Figure 1). The Taku River supports numerous stocks of salmon that are harvested by the U.S. and Canada gillnet fisheries. The U.S. drift gillnet fishery primarily targets Taku River sockeye salmon stocks and summer chum salmon from local Alaskan enhancement programs during the summer months and mixed stocks of coho in fall. The U.S. fishery also incidentally harvests chinook and pink salmon. The Canadian inriver fishery targets Taku River sockeye and coho salmon and incidentally harvests chinook and pink salmon. The U.S./Canada Pacific Salmon Treaty (PST) of 1985, and subsequent additions to the original treaty, established conservation (71,000 to 80,000 escapement goal) and harvest sharing (percentage sharing of the allowable catch) objectives for the Taku River sockeye salmon run. The PST mandates cooperative international management of transboundary river stocks. The most intensive cooperative management is directed at sockeye, coho, and chinook salmon.

Mark-recapture methods were used annually from 1998 through 2002 to estimate sockeye, chinook and coho salmon escapements. Chinook and coho studies are described in separate reports published by the ADF&G Division of Sport Fish. Fish wheels located at Canyon Island were used to capture sockeye, chinook, and coho salmon for tagging. Tagging data coupled with ratios of tagged to untagged fish in the Canadian fisheries upstream were used to develop escapement estimates for sockeye and coho salmon inseason.

The fish wheels also catch pink, chum and steelhead salmon. Although abundance is not estimated, the fish wheels do provide an index of interannual variation. This is especially valuable if the entire migration period is bracketed by the period of fish wheel operation (for example, as with pink salmon).

Age, length, and sex data were collected from sockeye, pink, and chum salmon caught in the fish wheels.

OBJECTIVES

The primary goals of the Taku River sockeye salmon tagging program were to obtain annual information on the above-border run size, distribution, migratory timing, and age-sex-size composition of sockeye salmon stocks in the Taku River drainage.

Specific annual objectives of this study were:

1. Estimate the total spawning abundance of sockeye salmon returning to Canadian portions of the Taku River with an estimated coefficient of variation no greater than 10% of the estimate. Estimate weekly inriver abundance with a coefficient of variation no greater than 20% of the estimate;

2. Estimate the age, length, and sex composition of sockeye salmon migrating past the fish wheel site on a weekly basis;

3. Forecast total abundance of sockeye salmon on a weekly basis based on tag-recovery data and historical migration-timing data;

4. Quantitatively describe the migratory timing (mean and variance) of the sockeye, pink, and chum salmon migrations past Canyon Island; and

5. Estimate the annual age and sex composition of pink and chum salmon migrating past the fish wheel site.

Objectives for the coho and chinook salmon studies at Canyon Island are outlined in project operational plans and reports completed by the ADF&G Division of Sport Fish in consultation with Fisheries and Oceans Canada.

METHODS

Study Area Description

The Taku River originates in the Stikine plateau of northwestern British Columbia, and drains an area of approximately 17,000 square kilometers (Figure 1). The merging of two principal tributaries, the Inklin and Nakina Rivers, approximately 50 km upstream from the international border forms the Taku River. The river flows southwest from this point though the Coast Mountain Range and empties into Taku Inlet about 30 km east of Juneau, Alaska. Approximately 95% of the Taku River watershed lies within Canada.

The Taku River is turbid, with much of its discharge originating in glacial fields on the eastern slopes of the Coast Range Mountains. This turbidity precludes complete enumeration of salmon escapements in many areas by aerial or foot surveys. Water discharge in the summer generally increases in proportion to the amount of sunshine received in the interior on coastal mountain ranges (ADF&G 1955). Winter (February) flows range from approximately 40-104 m^3/s at the U.S. Geological Survey water gauging station located on the lower Taku River near Canyon Island (Schellekens et al. 1996). Discharge increases in April and May and reaches a maximum average flow of 700-1,400 m^3/s during June. Flow usually remains high in July and drops in late August. The efficiency of fish wheels used to capture fish for tagging and the effectiveness of the Canadian commercial fishery are affected by the magnitude of river discharge. Sudden increases in discharge in the lower river result from the release of the glacially impounded waters of Tulsequah Lake (Kerr 1948; Marcus 1960). These floods usually occur once or twice a year between May and August. During water years 1988 to 1995 the instantaneous peak flow due to a Tulsequah event was 2,889 m^3/s (August 17, 1989; Shellekens et al. 1996). During the floods, water levels fluctuate dramatically and the river carries a tremendous load of debris (Figures 2a-2c).

Fish Wheel Operation

Migrating adult salmon were captured with two fish wheels at Canyon Island, located approximately 4 km downstream from the international border (Figure 1). Each fish wheel consisted of two aluminum pontoons in a framework, measuring approximately 12 m in length and 6 m in width and filled with closed-cell styrofoam for flotation, supporting an axle, paddle, and basket assembly. Two fish-catching baskets were rotated about the axle by the force of the water current against the baskets and/or paddles. As the fish wheel baskets rotated, they scooped up salmon. V-shaped slides attached to the rib structure of each basket directed fish to aluminum liveboxes bolted to the outer sides of the pontoons.

The fish wheels were positioned in the vicinity of Canyon Island on opposite riverbanks, approximately 200 m apart, and have been operated in identical locations since 1984. They were secured in position by anchoring to large trees with 0.95 cm steel cable and were held out from, and parallel to, the shoreline by log booms. The Taku River channel at this location is ideal for fish wheel operation. The river is fully channelized through a relatively narrow canyon that has very steep walls.

The fish wheels rotated at 0-4 r.p.m., depending on the water velocity and the number of attached paddles. When water levels subsided, more paddles were attached and the fish wheels were moved farther out from shore into faster water currents to maintain a speed of basket rotation adequate to catch fish.

Over time it has become clear that Tulsequah River floods are preceded by a sudden decline in river temperature and a corresponding rapid increase in river level. It is standard operating procedure to stop the fish wheels when river levels near 290 cm (114 inches, standardized gauge measure). By stopping the fish wheels during high water events a great deal of labor and material cost is saved by reducing damage to the fish wheels.

Baskets and liveboxes are removed from the pontoons and stored on high ground during the off season. The pontoons are towed upstream to a backwater slough and securely moored during the off season.

Tagging and Sampling Procedures

All sockeye captured in the fish wheels were sampled for sex and mid-eye to fork of tail length (MEF). In addition, a sub-sample of 260 sockeye salmon per week were sampled for scales. Clethral arch to fork of tail (CAF) length measurements were taken from 200 sockeye salmon throughout the season, and paired with MEF measurements. Canadian fish buyers prefer a headless, gutted product; because of this the only length measurement available from the commercial fishery was CAF[3]. The paired MEF and CAF measurements from the fish wheels allowed conversion of CAF measurements to MEF.

All chum salmon were sampled for sex, scales, and MEF length. The daily sampling goal for pink salmon was 25 fish; these fish were sampled for sex and MEF length.

All uninjured sockeye greater than 350 mm (MEF length) were tagged with numbered spaghetti tags. Sockeye less than 350 mm (MEF) were not tagged because fish in this size range are virtually unsusceptible to capture in the upriver gillnet fishery from which tagged to untagged ratios are used to develop population

[3] In 1998, only cleithral arch to hypural plate (CAH) measurements were taken from the Canadian commercial fishery.

estimates for these species. Sockeye salmon with serious wounds (most often thought to be seal inflicted) were not tagged. Pink, chum and steelhead salmon were not tagged.

Salmon were dipnetted from the fish wheel liveboxes into a tagging trough partially filled with river water. Spaghetti tags (Floy Tag and Manufacturing Inc., Seattle, WA)[4] were applied to sockeye salmon as follows: one person held the fish in the tagging trough while a second person inserted a 15 cm applicator needle and attached spaghetti tag through the dorsal musculature immediately below the dorsal fin. The ends of the spaghetti tag were then knotted together with a single overhand hitch. Biological sampling was also conducted during application of the spaghetti tags. Sex and length measurements were recorded, and scale samples taken from all chum salmon, and sub-samples of the sockeye salmon caught. Sex and length data were also collected daily from a sub-sample of 25 pink salmon, but scales were not taken from this species. The tagging and sampling procedures took from 40 to 60 seconds per fish to complete. The fish were then immediately and gently released back into the river.

The spaghetti tags we used for sockeye salmon were made of hollow PVC tubing (approximately 2.0 mm in diameter and 30 cm in length) and were consecutively numbered and labeled with project description information. Fluorescent orange tags were used to tag all sockeye salmon.

In general, fish wheel catches were sampled in the morning, afternoon, and evening. Less frequent checks, morning and evening, were made during lulls in the migration to minimize crew overtime. During peak migration times catches were sampled more frequently, early in the morning and late at night.

Tag Recovery

Tags were recovered from fish harvested in the Canadian commercial fishery, and to a very minor extent, test and aboriginal ("food fish") fisheries. These fisheries occurred in Canadian portions of the Taku River within 20 km of the international border. Catches that were not associated with tag recovery data were censored, for example most of the aboriginal catch. All sockeye salmon caught in the commercial and test fisheries were considered to have been examined for tags and all of the captured tags were considered to have been recovered.

The commercial fishery operated from two to four days per week from late June to early September. This fishery targeted sockeye and starting in mid-August, coho. Except for the 1998 season, two test fisheries operated, a "spring" fishery from late May to mid June, and a "fall" fishery from mid-September to early October. The spring fishery targeted chinook with small mesh gillnets so that females could be released. The aboriginal fishery operated sporadically through the seasons, targeting chinook, sockeye and coho; detailed daily catch and tag data was provided for the early part of September. Drift and set gillnets were the principal gear types used; mesh sizes varied little, if at all, across the various fisheries associated with the mark-recapture study. One wooden fish wheel was operated by the Taku River Tlingit First Nation for commercial and food fish purposes, but caught few sockeye.

A cash reward of $5.00 (Canadian) was offered by DFO for each sockeye tag returned with information on the date and location of recapture: ADF&G offered a $2.00 (U.S.) reward for chinook salmon tags. Tags and catch statistics were collected daily (when the fishery was open) by DFO crew members stationed at Canyon Island. This information was reported to DFO and ADF&G offices in Whitehorse and Douglas via single side band radio or satellite telephone. Small numbers of tags were also recovered from the U.S. inriver

[2] Mention of trade names does not constitute endorsement by ADF&G or DFO.

personal use fishery and the District 111 gillnet fishery. ADF&G offered a $2.00 (U.S.) reward for each tag returned from these fisheries, and conducted a lottery after the season to award a $100.00 bonus to one of the U.S. fishers that returned tags.

Tag observations and recoveries were also made at upstream salmon enumeration weirs operated by DFO at the outlets to Little Trapper and Tatsamenie lakes; TRTFN at Kuthai Lake and at a carcass-collecting weir on the Nakina River; and by ADF&G on the river draining Little Tatsamenie Lake (Tatsatua Creek).

Sex, length measurements, and scale data were obtained from the commercial fishery (by the crew stationed at Canyon Island), and the various enumeration weirs.

Tagging and tag recovery data were organized by the ADF&G/DFO statistical week for analysis. Statistical weeks begin at 00:01 AM Sunday and end the following Saturday at midnight, with weeks being numbered sequentially beginning with the week encompassing the first Saturday in January. Inclusive dates for 1998 – 2002 statistical weeks are shown in Appendix A.1 – A.5.

Statistical Methods

Sockeye salmon tagging data, tag recovery data and catch data were entered into an abundance estimation program which is referred to as the Stratified Population Analysis System (SPAS) (Arnason et al. 1996). This model provides stratified population estimates using maximum likelihood techniques (Plante 1990) and associated variances when s (the number of tagging stratum) and t (number of recovery stratum) are not equal. For cases in which $s=t$, the model provides stratified population estimates based on Chapman and Junge (1956) and Darroch (1961). This stratified method was used because it allows the probabilities of capture in tagging and recovery strata to vary across the strata.

Assumptions necessary to form consistent (i.e., approaching unbiased as sample size increases) stratified mark-recapture estimates in this study include (Arnason, et al. 1996):

1. All fish that pass Canyon Island during the period of interest have a non-zero probability of recovery in the commercial fishery and all fish caught by the fishery have a non-zero probability of being tagged (i.e., the population is closed);

2. There is no tag loss, tag induced mortality, tag misidentification or non-reporting. Should any of these occur, they are to be estimated and adjusted for;

3. All fish, tagged or not, are independently caught with the same probability in any given recovery stratum;

4. All fish, tagged or not, move from a given release stratum to the recovery strata independently with the same probability distribution; and

5. There are no release strata or recovery strata where no tags are released or found respectively, and there are no rows or columns of the release-recovery matrix which are linear combinations of other rows or columns respectively.

The first assumption is addressed by the fact that two fish wheels are used in a consistent manner throughout the season and that the inriver fishery is conducted weekly. For the second assumption, tag loss is probably not too excessive because of the close proximity of the fishery to the fish wheels. Tag-induced mortality and

tag loss have been shown to be insignificant in a holding study/tag loss study conducted by McGregor and Milligan (1991, unpublished data). The extent of tag loss, whether it be by shedding, misidentification, or non-reporting, was found to be negligible in a 1994 study (Kelley et al., 1997) conducted on the Taku River. Secondary marking studies to test for short term tag loss in sockeye salmon captured and tagged at the fish wheels were continued annually from 1999 to 2002. The third and fourth assumptions have not been assessed, while the fifth assumption is met by pooling of various recovery or release strata.

Inriver sockeye salmon run estimates were generated on an inseason basis each season. Mark-recapture data was forwarded to the Douglas ADF&G and Whitehorse DFO offices within 24 hours of the weekly closure of the Canadian fishery. Data was analyzed and inriver abundance estimates were developed. Historical migratory timing data was then used each week to project the total inriver run size for the season. Due to the estimated three to four days travel time for fish between the District 111 gillnet fishery and Canyon Island (Clark et al. 1986), and since most tags applied at Canyon Island were not recovered until the following week in the Canadian fishery, our estimates of inriver abundance corresponds with the movement of Taku River sockeye salmon through District 111 approximately one to two weeks earlier.

Fishery management decisions that affect the magnitude and distribution of harvests and escapements are based in principle on the measured or perceived abundance of fish through time. Mundy (1982) described a set of statistics, termed migratory timing statistics, useful for characterizing the annual timing of fish migrations and for comparing the timing of migrations between years. Abundance per unit of time is divided by the total abundance throughout the migration to generate a time series of proportions, or time density. The shape of the time density characterizes the timing and temporal distribution of the migration. Two simple features of the time density are the mean date and variance or dispersion of the migration through time. We used fish wheel CPUE as an index of the abundance of fish migrating past Canyon Island, and calculated migratory timing statistics following the procedures of Mundy (1982). The mean date of passage in a migration of m days was estimated by:

$$\bar{t} = \sum_{t=1}^{m} t * P_t \quad , \qquad (1)$$

where $\bar{t}$ was the mean day of the migration (t=1 was the first day of the migration and m was the last day), and P_t is the proportion of the total cumulative fish wheel CPUE that occurred on day t. The calculated mean date is reported as the corresponding calendar date.

The variance of the migrations was estimated by:

$$s_t^2 = \sum_{t=1}^{m} (t - \bar{t})^2 * P_t \quad , \qquad (2)$$

The timing of individual sockeye salmon stocks past Canyon Island was derived from recoveries of tagged fish on the spawning grounds and was weighted by fish wheel CPUE to permit the escapement of a particular stock to be apportioned to week of passage past Canyon Island. The formula we used for

determining the proportion of the run occurring each week for each stock was:

$$\frac{\dfrac{C_k * T_{ks}}{T_k - T_{kc}}}{\sum_{j=22}^{38} \dfrac{C_k * T_k}{T_K - T_{kc}}} \quad , \qquad (3)$$

where: k is the statistical week of interest; C_k is the weekly proportion of the total season's fish wheel CPUE, T_{ks} is the number of spawning ground recoveries of stock s that were tagged in week k, T_k is the number of fish tagged at Canyon Island in statistical week k, and T_{kc} is the number of fish tagged at Canyon Island in statistical week k and caught in the Canadian fishery.

An assumption implicit in this calculation is that the removal of fish by the Canadian inriver fishery does not alter the migratory timing distribution of individual stocks. This assumption may be violated because the Canadian fishery harvest rate of the inriver run varied between fishing periods.

RESULTS

Season 1: 1998

Fish Wheel Operation

In 1998, the Taku fish wheels were operated on the Taku River from May 2 through September 15 (Table 1; Appendix B.1). Fish wheel I, located furthest upriver, was installed on May 2 and fish wheel II was installed on May 11. Fish wheels I and II fished all season except for May 10 due to high water and May 27-31 due to low water and August 1-2 due to the Tulsequah flood. Fish Wheels I and II fished until September 15, when both were stopped and dismantled for the season.

Fish Wheel Catches

Daily catches of sockeye, pink, and chum salmon in the Canyon Island fish wheels for 1998 to 2002 are listed in Appendices B.1. to B.5 and Appendices C.1 to C.5. Dates of operation and the total fish wheel catch by species for the 1984 to 2002 period are presented in Table 1. Graphs of the fish wheel CPUE for sockeye, pink, and chum salmon for the 1998 to 2002 period are included in Figures 3a-3e.

From 1998 to 2002, the daily fish wheel catches fluctuated dramatically. The effects of the U.S. commercial fishery in Taku Inlet were observable. Fish wheel catches declined to their lowest weekly levels between Thursday and Saturday indicating an average travel time of three to four days between Taku Inlet and Canyon Island

The total 1998 catch of sockeye salmon in the Canyon Island fish wheels was 4,230, 21.9% below the 1984 to 1997 average of 5,413 and well below the 1997 catch of 5,708 salmon (Table 1; Appendix B.1). Catches occurred from June 1 through September 15, with a peak during statistical week 29 (July 12 to July 18), when 480 sockeye salmon were captured. Prior to the first U.S. and Canadian commercial fishery opening during statistical week 25 (June 14-20), 77 sockeye salmon (1.7% of the season cumulative CPUE total) had been captured in the fish wheels at Canyon Island (Appendix B.1).

The total 1998 pink salmon catch in the fish wheels at Canyon Island was 23,321 surpassing the 1997 catch of 4,962 and 38.0% above the 1984-1997 average of 16,913 (Table 1). The total fish wheel catch of chum salmon was 167, 73.6% below the 1984 to 1997 average of 632. The peak daily catch of chum salmon was 19 fish on September 9 (Appendix C.1). The total fish wheel catch of steelhead was 120.

Tagging and Recovery Data

Of the 4,230 sockeye salmon caught in the Taku fish wheels, 3,793 (89.7%) were tagged (Table 3a). During the period from 1998 to 2002, only jack sockeye salmon (fish smaller than approximately 350 mm MEF that have spent only one year at sea) or sockeye with noticeable injuries were not tagged. The Canadian commercial fishery recaptured 772 tagged sockeye and accounted for 54.1% of the total sockeye tags recovered or observed (Table 2a). There were no Canadian test or aboriginal fisheries in 1998. Sockeye tags recovered downstream of Canyon Island totaled 21 (1.5%). Sockeye tags were also observed at weir sites, principally Little Trapper, Tatsamenie, and Kuthai lakes. These numbered 288 (20.2%), 258 (18.1%), and approximately 64 (4.5%) respectively. The sockeye weir counts for these locations numbered 8,717 (Little Trapper), 5,997 (Tatsamenie), and 1,934 (Kuthai) fish. Percent tagged sockeye observed at the weir sites are listed in Table 2a.

Escapement Estimates

Ratios of tagged sockeye salmon in the Canadian commercial, test and aboriginal fisheries were used to estimate the magnitude of the inriver run of sockeye salmon that passed Canyon Island during the period of June 14 to September 26, 1998.

A total of 772 tags with corresponding recovery date information were returned from 19,038 sockeye salmon taken in the Canadian fisheries (Table 3a). Tagging and recovery data were grouped into seven strata (Table 4a). We estimated that 89,992 sockeye salmon passed Canyon Island between June 14 and September 26. (Table 5; Figure 4). The approximate 95% confidence interval associated with this estimate was 79,984 to 100,001 fish. This estimate was expanded by the cumulative proportion of fish wheel CPUE through June 13, approximately 1.7%, to estimate the number of sockeye salmon that had passed before the period of the mark-recapture estimate. Using this method, an estimate of 1,556 fish passed Canyon Island during statistical weeks 23 and 24. The total estimate of sockeye salmon migrating past Canyon Island was 91,548. This estimate is 72% of the 1984 to 1997 average of 126,650 (Table 5).

The Taku River sockeye salmon run above Canyon Island was exploited by the Canadian fisheries at an estimated rate of 20.8%, compared to a 1984-1997 average of 19.0% (range 11.6% to 31.2%; Table 5). After removal of 19,038 and 239 sockeye salmon by the Canadian commercial and aboriginal fisheries respectively, the escapement past Canyon Island totaled an estimated 72,271 fish (Table 4a).

The 1998 to 2002 annual escapement estimates did not include two groups of sockeye salmon that spawn in the drainage: (1) fish that spawn in streams located downriver from Canyon Island, and (2) jack sockeye salmon. The number of sockeye salmon spawning downstream from Canyon Island is unknown but presumed small. Small numbers of sockeye salmon have been observed annually in lower tributaries of the lower Taku River (i.e. Fish Creek, Sockeye Creek, and Yehring Creek) during annual aerial and foot surveys (McGregor, personal communication; Figure 1). The contribution of jacks can represent a sizable portion of the Taku River run; the contribution of jack (one ocean) sockeye salmon to the Canyon Island fish wheel catches from 1983 to 2002 averaged 4.2% (range 0.0 to 8.5%; Table 6).

A necessary assumption of the population estimation technique used is that all fish in a particular recovery stratum, whether tagged or untagged, have the same capture probability. A factor that could violate this assumption is that tagging and recapture gear are selective for different sized fish. Based on length frequency distributions of sockeye salmon tagged at the fish wheels and of tagged sockeye recovered in the commercial fishery it is clear that the fish wheels tend to capture a higher proportion of smaller fish or the fishery captures a higher percentage of large fish (Figure 5a – 5e).

In past years (Kelley et al. 1996, McGregor et al. 1991) the possible effects of size selectivity on the sockeye salmon population estimate were assessed by stratifying tagging and recovery data by size class. Results for those years demonstrate that the mark-recapture estimates are robust in respect to fish length differences between the tagging and recapture events. The summed abundance estimates obtained for large and small sockeye salmon separately were not significantly different than the pooled estimates. Based on those results the mark-recapture data for 1998 to 2002 was not examined by fish size.

Migratory Timing

The mean date (July 18) and standard deviation (21.1 days) of the sockeye salmon run in 1998 were slightly different than the 1984 to 1997 average (July 22 and 18.6 days; Table 7). The sockeye salmon run was approximately four-days earlier than average and was more protracted. Migratory timing statistics (mean date July 24; standard deviation 7.9 days) showed the pink salmon run timing was 4 days later than average (July 20 and 8.3 days). The migratory timing for chum salmon is more difficult to assess because the duration of fish wheel operations has varied between years and has failed to cover the complete migration of this species.

Sockeye Salmon Stock Timing

The annual timing of three individual stock groups of sockeye salmon past Canyon Island during 1998 to 2002 was determined using recoveries of tagged fish from enumeration weirs at the outlet streams of Little Trapper, Tatsamenie, and Kuthai Lakes (Table 2a – 2e; Table 8a – 8e; Figure 6a – 6b).

Of the three main sockeye stocks that compromise the total Taku River sockeye run, Tatsamenie, Little Trapper, and Kuthai, the Kuthai Lake sockeye migrate past Canyon Island the earliest followed by the Little Trapper and then Tatsamenie stocks (Table 8a).

Tagging data from 62 sockeye tags recovered at Kuthai Lake weir show this stock was present at Canyon Island from statistical weeks 23 to 27 (May 29 to July 4). The peak of the Kuthai Lake migration past Canyon Island took place during statistical week 25 (June 14 to June 20).

Little Trapper Lake sockeye salmon (260 tags recovered) were present at Canyon Island during statistical weeks 25 to 32 (June 14 to August 8). The peak of the Little Trapper Lake migration past Canyon Island occurred during statistical week 31 (July 26 to August 1).

The Tatsamenie Lake stock (238 tags recovered) exhibited the latest, most protracted, return timing; tagged fish bound for this system were present at Canyon Island between statistical weeks 28 to 36 (July 5 to September 5). The peak week of migration past Canyon Island for Tatsamenie Lake sockeye was statistical week 31 (July 26 to August 01).

Inriver Sockeye Salmon Migration Rates

Inriver travel times for one early run stock, Kuthai Lake, and two later run stocks, Tatsamenie and Little Trapper lakes could be determined from the recovery of tagged fish at enumeration weirs. Migration rates increased over the course of the run (Table 9a). Kuthai Lake sockeye tagged in statistical week 24 averaged 39.6 days in transit, while those tagged in statistical week 26 averaged 31.4 days. For the Tatsamenie stock, sockeye tagged in statistical week 30 averaged 30.7 days in transit while fish tagged in statistical week 34 averaged 25.6 days. Little Trapper sockeye tagged in statistical week 27 averaged 31.6 days in transit while those tagged in statistical week 31 averaged 19.4 days.

Age, Length, and Sex Composition

The age and sex compositions, by sex and time period, of the Canyon Island fish wheel catches of sockeye salmon for 1998 to 2002 are summarized in Appendices D.1 to D.5. The results of regressions of paired measurements of mid-eye to fork of tail (MEF) and cleithral arch to fork of tail (CAF) lengths of sockeye are summarized in Appendix F.1. In 1998, only cleithral arch to hypural plate measurements were taken. The results of a regression for CAH to CAF paired measurements for sockeye lengths are summarized in Appendix G.1.

For sockeye salmon sampled at Canyon Island, age-1.3 fish were most prevalent (60.4%) with age-1.2 fish comprising 19.7%, age-2.2 6.9%, age-2.3 4.0%, age-1.1 5.2%, age-0.2 2.4% and very small numbers of age-0.1, 0.3, 2.1, 1.4 and 3.2 fish (Table 6). Compared to the 1983 to 1997 average, age-1.3, 1.4, and 2.3 fish were slightly smaller while all other main age classes were slightly larger (Table 10). Female sockeye salmon were more prevalent (51.3%) than males.

Fish wheel catches of chum salmon were primarily comprised of age-0.4 (67.8%) fish, 19.0% greater than the 1983-1997 average of 48.8% (Table 11). Age-0.3 fish constituted 27.6% of the fish wheel catch and very small numbers of age-0.2 and 0.5 fish (Table 6). Male chum salmon were more prevalent (51%) than females. The average length at age for chum salmon passing Canyon Island were very similar to the 1983 to 1997 averages except for age-0.5 which was considerably larger (Table 12).

Season 2: 1999

Fish Wheel Operation

In 1999, the Taku fish wheels operated from May 14 through September 28 (Table 1; Appendix B.2). Fish wheel II was installed on May 14 and fish wheel I was installed on May 15. Fish wheels I and II fished all season except for June 17, August 19, and August 20, when both fish wheels were stopped due to high water. Fish wheel II fished until September 25, when it was stopped and dismantled for the season. Fish wheel I fished until September 28, when it was stopped and dismantled for the season.

Fish Wheel Catches

The total 1999 catch of sockeye salmon in the Canyon Island fish wheels was 4,636, 13.1% below the 1984 to 1998 average but above last years catch of 4,230 salmon. (Table 1; Appendix B.2). Catches

occurred from June 2 through September 26, with a peak during statistical week 28 (July 4 to July 10), when 931 sockeye salmon were captured. Prior to the first U.S. and Canadian commercial fishery opening during statistical week 26 (June 20-26), 200 sockeye salmon (4.8% of the season cumulative CPUE total) had been captured in the fish wheels at Canyon Island (Appendix B.2).

The total 1999 pink salmon catch in the fish wheels at Canyon Island was 23,448 surpassing last years catch of 23,321 (Table 1). This was the second largest back-to-back catch of pink salmon on record for the Taku River and may signify a return towards odd-year dominance. Fish wheel catches from 1992 to 1998 were even year dominant averaging 25% more than odd year catches for this period. The total fish wheel catch of chum salmon was 164, well below the 1984 to 1998 average of 601. The peak daily catch of chum salmon occurred on September 15 (Appendix C.2). The total annual fish wheel catch of steelhead was 76.

Tagging and Recovery Data

Of the 4,636 sockeye salmon caught in the Taku fish wheels, 4,246 (91.6%) were tagged (Table 3b). Daily numbers of sockeye caught and tagged are listed in Appendix B.2. The Canadian commercial fishery recaptured 728 tagged sockeye and accounted for 49.7% of the total sockeye tags recovered or observed (Table 2b). The Canadian aboriginal (weeks 37 and 38 only) and test fisheries recovered 2 (0.1%) and 4 (0.3%) tags respectively. Recoveries downstream of Canyon Island totaled 41 (2.8%). Sockeye tags were also observed at Little Trapper, Tatsamenie and Kuthai lake weir sites. These numbered 360 (24.6%), 125 (8.5%), and approximately 184 (12.6%) respectively. The sockeye weir counts to these locations numbered 11,805 (Little Trapper), 2,104 (Tatsamenie), and 10,042 (Kuthai) fish. Percent sockeye tagged observed at the weir sites are listed in Table 2b.

Escapement Estimates

Ratios of tagged sockeye salmon in the Canadian commercial, test and aboriginal fisheries were used to estimate the magnitude of the inriver run of sockeye salmon that passed Canyon Island during the period of June 6 to October 1, 1999.

A total of 734 sockeye tags with corresponding recovery date information were returned from 20,793 sockeye salmon taken in the Canadian fisheries (Table 3b). Tagging and recovery data were grouped into nine strata (Table 4b). We estimated that 113,706 sockeye salmon passed Canyon Island between June 6 and October 1. The approximate 95% confidence interval associated with the estimate was 103,194 to 124,218 fish (Table 5; Figure 4). This estimate is 91.5% of the 1984 to 1998 average of 124,309 (Table 5; Figure 4).

The Taku River sockeye salmon run above Canyon Island was exploited by the Canadian fisheries at an estimated rate of 18.2%, compared to a 1984 to 1998 average of 19.1% (Table 5). After removal of 20,681, 382, and 81 sockeye salmon by the Canadian commercial, aboriginal and test fisheries respectively, from the estimated above border total run of 113,706 the escapement past Canyon Island totaled an estimated 92,562 fish (Table 4b).

Migratory Timing

The mean date (July 18) and standard deviation (19.5 days) of the sockeye salmon run in 1999 was very similar to the migratory statistics from 1998. As in 1998, the sockeye run was earlier and slightly more protracted than the 1984 to 1998 average (July 21 and 18.8 days; Table 7).

Pink salmon migratory timing statistics (mean date July 24; standard deviation 7.9 days) showed the 1999 run timing and standard deviation was identical to the run in 1998 and 4 days later than average (July 21 and 8.3 days). The migratory timing for chum salmon is more difficult to assess because the duration of fish wheel operations has varied between years and has failed to cover the complete migration of this species.

Sockeye Salmon Stock Timing

The Kuthai Lake stock (164 tags recovered) migrated past Canyon Island the earliest of the three Taku sockeye stocks examined (Table 8b). These fish were present at Canyon Island from statistical weeks 24 to 30 (June 6 to July 24). The peak of the Kuthai Lake migration past Canyon Island took place during statistical week 27 (June 27 to July 3).

Little Trapper Lake sockeye salmon (358 tags recovered) were present at Canyon Island during statistical weeks 27 to 33 (June 27 to August 14). The peak of the Little Trapper Lake migration past Canyon Island occurred during statistical weeks 28 and 31 (July 4 to July 10 and July 25 to July 31).

The Tatsamenie Lake stock (85 tags recovered) exhibited the latest, most protracted, return timing; tagged fish bound for this system were present at Canyon Island between statistical weeks 27 to 36 (June 27 to September 4). The peak week of migration at Canyon Island for Tatsamenie Lake sockeye was statistical week 32 (August 1 to August 7).

Inriver Sockeye Salmon Migration Rates

Migration rates generally increased over the course of the run (Table 9b). Kuthai Lake sockeye tagged in statistical week 25 averaged 35.0 days in transit, while those tagged in statistical week 28 averaged 31.5 days. For the Tatsamenie stock, fish tagged in statistical week 31 averaged 33.8 days in transit while fish tagged in statistical week 35 averaged 25.5 days. Little Trapper Lake fish tagged in statistical week 27 averaged 33.0 days in transit while those tagged in statistical week 32 averaged 21.0 days.

The 1999 migration rate patterns for Kuthai, Little Trapper, and Tatsamenie lakes sockeye salmon are similar to those observed in other years.

Age, Length, and Sex Composition

Contrasting 1998, the dominant age class for sockeye salmon sampled at Canyon Island were age-1.2 fish (39.9%) with age-1.3 fish comprising 30.3%, age-2.2 12.1%, age-0.2 4.8%, age-1.1 6.5%, age-0.3 2.5%, age-2.3 1.7%, and very small numbers of age-0.1, 2.1, and 1.4 fish (Table 6). Age 0.1, 1.2, 2.2, and 1.4 sockeye salmon were slightly larger than the 1983 to 1998 average (Table 10). Male sockeye salmon were more prevalent (54.9%) than females (Appendix D.2).

Fish wheel catches of chum salmon were primarily comprised of age-0.3 (84.1%) fish, 36.6% greater than the 1983 to 1998 average of 47.5% (Table 11). Age-0.4 fish constituted 13.9 % of the fish wheel catch. Female chum salmon were more prevalent (57%) than males (Appendix D.2). The average length at age for chum salmon passing Canyon Island was 615, 644, and 664 mm (MEF) for age 0.2, 0.3, and 0.4 fish respectively (Table 12).

Season 3: 2000

Fish Wheel Operation

In 2000, Taku fish wheels I and II were both installed on May 14 (Table 1; Appendix B.3). Fish wheels I and II fished all season except for July 25 and 26, when both fish wheels were stopped due to the Tulsequah flood. Fish wheel II fished until September 23, when it was stopped and dismantled for the season. Fish wheel I fished until September 28, when it was stopped and dismantled for the season.

Fish Wheel Catches

The total 2000 catch of sockeye salmon in the Canyon Island fish wheels was 5,865, 10.9% above the 1984 to 1999 average and above last years catch of 4,636 salmon. (Table 1; Appendix B.3). Catches occurred from May 30 through September 28, with a peak during statistical week 30 (July 16 to July 22), when 583 sockeye salmon were captured. Prior to the first U.S. and Canadian commercial fishery opening during statistical week 26 (June 18-24), 416 sockeye salmon (6.5% of the season cumulative CPUE total) had been captured in the fish wheels at Canyon Island (Appendix B.3).

The total 2000 catch of pink salmon in the Canyon Island fish wheels was 6,529 well below last years catch of 23,448 (Table 1) and 63.2% below the 1984 to 1999 average. The total fish wheel catch of chum salmon was 422, 26.4% below the 1984 to 1999 average of 573 but the second highest fish wheel catch total since 1991. The peak daily catch of 24 chum salmon occurred on September 8 (Appendix C.3). The total fish wheel catch of steelhead was 159.

Tagging and Recovery Data

Of the 5,865 sockeye salmon caught in the Taku fish wheels, 5,424 (92.5%) were tagged (Table 3c). The Canadian commercial fishery recaptured 1,269 tagged sockeye and accounted for 59.4% of the total sockeye tags recovered or observed (Table 2c). The Canadian spring and fall test fisheries recovered a combined 17 sockeye tags (0.8%). There were no reported tag recoveries from the Canadian aboriginal fishery for 2000. Recoveries downstream of Canyon Island totaled 26 (1.2%). Sockeye tags were also observed at Little Trapper, Tatsamenie and Kuthai lake weir sites. These numbered 377 (17.6%), 329 (15.4%), and approximately 114 (5.3%) respectively. The sockeye weir counts for these locations numbered 11,551, 7,575, and 4,096 sockeye respectively. Percent sockeye tagged observed at the weir sites are listed in Table 2c.

Escapement Estimates

Ratios of tagged sockeye salmon in the Canadian commercial, test and aboriginal fisheries were used to estimate the magnitude of the inriver run of sockeye salmon that passed Canyon Island during the period of June 4 to September 30, 2000.

A total of 1,286 tags with corresponding recovery date information were returned from 28,258 sockeye salmon taken in the Canadian fisheries (Table 3c). Tagging and recovery data were grouped into nine strata (Table 4c). We estimated that 115,693 sockeye salmon passed Canyon Island between June 4 and September 30. The approximate 95% confidence interval associated with the estimate was 107,815 to 123,570 fish. This estimate is 93.6% of the 1984 to 1999 average of 123,647 (Table 5; Figure 4).

The Taku River sockeye salmon run above Canyon Island was exploited by the Canadian fisheries at an estimated rate of 24.2%, compared to a 1984 to 1999 average of 19.1% (Table 5). After removal of 27,942, 138, and 315 sockeye salmon by the Canadian commercial, aboriginal and test fisheries respectively, from the estimated above border total run of 115,693, the escapement past Canyon Island totaled an estimated 87,298 (Table 4c).

Migratory Timing

The mean date (July 17) and standard deviation (20.8 days) of the sockeye salmon run in 2000 were similar to the 1984 to 1999 average (July 21 and 18.9 days; Table 7). The sockeye salmon run was approximately three-days earlier than average and was more protracted.

Pink salmon migratory timing statistics (mean date July 25; standard deviation 8.7 days) showed the pink salmon run timing was 5 days later than the 1984 to 1999 average (July 20 and 8.2 days). The migratory timing for chum salmon is more difficult to assess because the duration of fish wheel operations has varied between years and has failed to cover the complete migration of this species.

Sockeye Salmon Stock Timing

The Kuthai Lake stock (112 tags recovered) migrated past Canyon Island the earliest of the three Taku sockeye stocks examined (Table 8c). These fish were present at Canyon Island from statistical weeks 24 to 29 (June 04 to July 15). The peak of the Kuthai Lake migration past Canyon Island took place during statistical week 26 (June 18 to June 24).

Little Trapper Lake sockeye salmon (292 tags recovered) were present at Canyon Island during statistical weeks 26 to 33 (June 18 to August 12). The peak of the Little Trapper Lake migration occurred during statistical week 28 (July 02 to July 08).

The Tatsamenie Lake stock (322 tags recovered) exhibited the latest, most protracted, return timing; tagged fish bound for this system were present at Canyon Island between statistical weeks 28 to 36 (July 02 to September 02). The peak week of migration for Tatsamenie Lake sockeye was statistical week 33 (August 6 to August 12).

The 2000 migration rate patterns for Kuthai, Little Trapper, and Tatsamenie lakes sockeye salmon are similar to those observed in other years.

Inriver Sockeye Salmon Migration Rates

Similar to previous seasons, migration rates generally increased over the course of the run (Table 9c). Kuthai Lake sockeye tagged in statistical week 24 averaged 43.7 days in transit, while those tagged in statistical week 29 averaged 35.0 days (the apparent decrease in travel time after week 27 may be a reflection of the small sample size). For the Tatsamenie stock, fish tagged in statistical week 30 averaged 32.9 days in transit while fish tagged in statistical week 33 averaged 26.3 days. During statistical week 34, travel rates for the Tatsamenie stock decreased and subsequently increased for statistical weeks 35 and 36. Little Trapper Lake fish tagged in statistical week 27 averaged 39.0 days in transit while those tagged in statistical week 32 averaged 21.5 days.

Age, Length, and Sex Composition

For sockeye salmon sampled at Canyon Island in 2000, age-1.3 fish were most prevalent (42.3%) with age-1.2 fish comprising 34.5%, age-0.3 8.6%, age-0.2 6.3%, age-2.2 4.6%, age-2.3 2.0%, age-1.1 1.2%, and very small numbers of age-2.1, and 1.4 fish (Table 6). With the exception of age-0.1, 1.1, and 2.1 fish, all other ages were larger than the 1983 to 1999 average (Table 10). Age-1.2 fish were significantly larger (503mm MEF) than the 1983 to 1999 average (477mm MEF). Female sockeye salmon were more prevalent (53.1%) than males (Appendix D.3).

Fish wheel catches of chum salmon were primarily comprised of age-0.3 (75.4%) fish, 25.7% greater than the 1983 to 1999 average of 49.8% (Table 11). Age-0.4 fish constituted 24.5% of the fish wheel catch. Female chum salmon were more prevalent (52%) than males (Appendix D.2). The average length at age for chum salmon passing Canyon Island was 650 and 680 mm (MEF) for age 0.3, and 0.4 fish respectively (Table 12).

Season 4: 2001

Fish Wheel Operation

In 2001, the Taku fish wheels operated from May 27 through September 27 (Table 1; Appendix B.4). Fish wheel II was installed on May 27 and fish wheel I was installed on May 28. Fish wheels I and II fished all season except for August 10 due to high water and September 11 and 12 due to low water. Fish wheel II fished until September 20, when it was stopped and dismantled for the season. Fish wheel I fished until September 27, when it was stopped and dismantled for the season due to low water.

Fish Wheel Catches

The total 2001 catch of sockeye salmon in the Canyon Island fish wheels was 6,201, 16.5% above the 1984 to 1999 average and the highest fish wheel catch total since 1995 (Table 1; Appendix B.4). Catches

occurred from May 29 through September 28[5], with a peak during statistical week 29 (July 15 to July 21), when 926 sockeye salmon were captured. Prior to the first U.S. and Canadian commercial fishery opening during statistical week 25 (June 17-23), 237 sockeye salmon (5.1% of the season cumulative CPUE total) had been captured in the fish wheels at Canyon Island (Appendix B.4).

The total 2001 pink salmon catch in the fish wheels at Canyon Island was 9,134, 46.5% below the 1984-2000 average and the second consecutive year of relatively low fish wheel catches (Table 1; Appendix C.4). The total fish wheel catch of chum salmon was 250, 55.7% below the 1984 to 1999 average of 564 and below last years total catch of 422. The peak daily catch of chum salmon occurred on September 15 (Appendix C.4). The fish wheel catch of steelhead was 125.

Tagging and Recovery Data

Of the 6,201 sockeye salmon caught in the Taku fish wheels, 5,412 (87.3%) were tagged (Table 3d). Daily numbers of sockeye caught and tagged are listed in Appendix B.4. The Canadian commercial fishery recaptured 1,360 tagged sockeye and accounted for 47.0% of the total sockeye tags recovered or observed (Table 2d). The Canadian fall test fishery recovered 1 tag (0.03%). There were no reported tag recoveries from the Canadian aboriginal fishery for 2001. Recoveries downstream of Canyon Island totaled 37 (1.3%). Sockeye tags were also observed at Little Trapper, Tatsamenie and Kuthai lake weir sites. These numbered 476 (16.5%), 982 (34.0%), and approximately 27 (0.9%) respectively. The sockeye weir counts at these locations numbered 16,860, 22,575, and 1,663 sockeye respectively. Percent sockeye tagged observed at the weir sites are listed in Table 2d.

Escapement Estimates

Ratios of tagged sockeye salmon in the Canadian commercial, test and aboriginal fisheries were used to estimate the magnitude of the inriver run of sockeye salmon that passed Canyon Island during the period of June 3 to October 6, 2001.

A total of 1,361 tags with corresponding recovery date information were returned from 47,988 sockeye salmon taken in the Canadian fisheries (Table 3d). Tagging and recovery data were grouped into nine strata (Table 4d). We estimated that 192,269 sockeye salmon passed Canyon Island between June 3 and October 6. The approximate 95% confidence interval associated with the estimate was 180,307 to 204,231 fish. This estimate is 56.1% above the 1984 to 2000 average and the largest sockeye estimate since the inception of the project (Table 5; Figure 4).

The Taku River sockeye salmon run above Canyon Island was exploited by the Canadian fisheries at an estimated rate of 25.0%, compared to a 1984-2000 average of 19.4% (Table 5). After removal of 47,660, 210, and 328 sockeye salmon by the Canadian commercial, aboriginal and test fisheries respectively, from the estimated above border total run of 192,269, the escapement past Canyon Island totaled an estimated 144,071 fish (Table 4d). The sockeye escapement estimate for 2001 was the largest on record.

[5] One sockeye was recovered in the fish wheel box one day after dismantling the fish wheel.

Migratory Timing

The mean date (July 20) and standard deviation (18.0 days) of the sockeye salmon run in 2001 were nearly identical to the 1984 to 2000 average (July 21 and 19.0 days; Table 7). The sockeye salmon run was approximately one day earlier than average and not as prolonged.

Migratory timing statistics (mean date July 18; standard deviation 8.4 days) showed the pink salmon run timing was three days earlier than average (July 21 and 8.2 days). The migratory timing for chum salmon is more difficult to assess because the duration of fish wheel operations has varied between years and has failed to cover the complete migration of this species.

Sockeye Salmon Stock Timing

The Kuthai Lake stock (25 tags recovered) migrated past Canyon Island the earliest of the three Taku stocks examined (Table 8d). These fish were passing Canyon Island from statistical weeks 23 to 30 (June 3 to July 28). The peak of the Kuthai Lake migration took place during statistical week 26 (June 24 to June 30).

Little Trapper Lake sockeye salmon (296 tags recovered) exhibited the most protracted return timing. These fish were present at Canyon Island during statistical weeks 25 to 33 (June 17 to August 18). The peak of the Little Trapper Lake migration occurred during statistical week 29 (July 15 to 21).

The Tatsamenie Lake stock (709 tags recovered) exhibited the latest return timing; tagged fish bound for this system were present at Canyon Island between statistical weeks 28 to 34 (July 8 to August 25). The peak week of migration for Tatsamenie Lake sockeye was statistical week 30 (July 22 to July 28).

The 2001 migration rate patterns for Kuthai, Little Trapper, and Tatsamenie lakes sockeye salmon are similar to those observed in other years.

Inriver Sockeye Salmon Migration Rates

Similar to previous seasons, migration rates generally increased over the course of the run (Table 9d). Kuthai Lake fish tagged in statistical week 24 averaged 41.0 days in transit, while those tagged in statistical week 28 averaged 21.3 days. For the Tatsamenie stock, fish tagged in statistical week 29 averaged 31.6 days in transit while fish tagged in statistical week 35 averaged 20.2 days. Little Trapper Lake fish tagged in statistical week 26 averaged 36.4 days in transit while those tagged in statistical week 30 averaged 21.4 days.

Age, Length, and Sex Composition

For sockeye salmon sampled at Canyon Island in 2001, age-1.3 fish were most prevalent (53.8%) with age-1.2 fish comprising 21.4%, age-0.3 9.7%, age-1.1 8.3%, age-0.2 2.2%, age-2.2 2.1%, age-2.3 1.4%, and very small numbers of age-0.1, 2.1, and 1.4 fish (Table 6). Age-1.2 and 1.3 fish were significantly larger than the 1983 to 2000 average (Table 10). Age-0.2, 0.3, 2.1, and 2.2 sockeye salmon were slightly

larger than the 1983 to 1998 average. Male sockeye salmon were more prevalent (52.2%) than females (Appendix D.4).

Fish wheel catches of chum salmon were primarily comprised of age-0.4 (54.1%) fish, similar to the 1983 to 2000 average of 47.8% (Table 11). Age-0.3 fish constituted 44.9% of the fish wheel catch. Female chum salmon were more prevalent (56.5%) than males (Appendix D.2). The average length at age for chum salmon passing Canyon Island was 528, 623, and 665 mm (MEF) for age 0.2, 0.3, and 0.4 fish respectively (Table 12).

Season 5: 2002

Fish Wheel Operation

In 2002, the Taku fish wheels operated from May 19 through September 14 (Table 1; Appendix B.5). Fish wheel I was installed on May 19 and fish wheel II was installed on May 21. Fish wheels I and II fished all season except for August 17 due to high water. Fish wheel I fished until September 12, when it was stopped and dismantled for the season. Fish wheel II fished until September 14, when it was stopped and dismantled for the season due to low water.

Fish Wheel Catches

The total 2002 catch of sockeye salmon in the Canyon Island fish wheels was 5,812, 8.2% above the 1984 to 2001 average but slightly below last years catch of 6,201 salmon. (Table 1; Appendix B.5). Catches occurred from May 30 through September 14, with a peak during statistical week 29 (July 14 to July 20), when 1,023 sockeye salmon were captured. Prior to the first U.S. and Canadian commercial fishery opening during statistical week 25 (June 16-22), 651 sockeye salmon (14.3% of the season cumulative CPUE total) had been captured in the fish wheels at Canyon Island (Appendix B.5).

The total 2002 catch of pink salmon in the Canyon Island fish wheels was 5,672, 65.9% below the 1984 to 2001 average and the third consecutive year of relatively low fish wheel catches (Table 1; Appendix C.5). The total fish wheel catch of chum salmon was 195, 64.3% below the 1984 to 2001 average of 547. The peak daily catch of 29 chum salmon occurred on September 5 (Appendix C.5). The annual fish wheel catch of steelhead was 90.

Tagging and Recovery Data

Of the 5,812 sockeye salmon caught in the Taku fish wheels, 5,347 were tagged (92.0%) (Table 3e). The Canadian commercial fishery recaptured 1,251 tagged sockeye and accounted for 62.0% of the total sockeye tags recovered or observed (Table 2e). The Canadian spring test fishery recovered 17 (0.8%) tags. Recoveries downstream of Canyon Island totaled 37 (1.8%). Sockeye tags were also observed at Little Trapper, Tatsamenie and Kuthai lake weir sites. These numbered 366 (18.1%), 203 (10.1%), and approximately 135 (6.7%) respectively. The sockeye weir counts at these locations numbered 11,484, 5,495, and 7,697 sockeye respectively. Percent sockeye tagged observed at the weir sites are listed in Table 2e.

Escapement Estimates

Ratios of tagged sockeye salmon in the Canadian commercial, test and aboriginal fisheries were used to estimate the magnitude of the inriver run of sockeye salmon that passed Canyon Island during the period of June 8 to September 21, 2002.

A total of 1,248 tags with corresponding recovery date information were returned from 31,735 sockeye salmon taken in the Canadian fisheries (Table 3e). Tagging and recovery data were grouped into four strata (Table 4e). We estimated that 135,233 sockeye salmon passed Canyon Island between June 2 and September 21. The approximate 95% confidence interval associated with the estimate was 127,768 to 142,698 fish. This estimate is 6.5% higher then the 1984 to 2001 average of 127,017 (Table 5; Figure 4).

The Taku River sockeye salmon run above Canyon Island was exploited by the Canadian fisheries at an estimated rate of 23.0%, compared to a 1984 to 2001 average of 19.7% (Table 5). After removal of 31,053, 155, and 682 sockeye salmon by the Canadian commercial, aboriginal and test fisheries respectively, from the estimated above border total run of 135,233, the escapement past Canyon Island totaled an estimated 103,343 fish (Table 4e).

Migratory Timing

The mean date (July 9) and standard deviation (18.6 days) of the sockeye salmon run in 2002 was different than the 1984-2001 average (July 21 and 18.9 days; Table 7). The sockeye salmon run was approximately twelve days earlier than average but was less protracted. Migratory timing statistics (mean date July 20; standard deviation 7.6 days) showed the pink salmon run timing was 1 day earlier than average (July 21 and 8.3 days).

The migratory timing for chum salmon during 1998 to 2002 is difficult to assess because the duration of fish wheel operations has varied between years and has failed to cover the complete migration of this species.

Sockeye Salmon Stock Timing

The Kuthai Lake stock (135 tags recovered) migrated past Canyon Island the earliest of the three Taku stocks examined (Table 8e). These fish were passing Canyon Island from statistical weeks 23 to 28 (June 1 to July 12). The peak of the Kuthai Lake migration took place during statistical week 24 (June 8 to June 14).

Little Trapper Lake sockeye salmon (242 tags recovered) were present at Canyon Island during statistical weeks 25 to 30 (June 15 to July 26). The peak of the Little Trapper Lake migration occurred during statistical week 28 (July 6 to July 12).

The Tatsamenie Lake stock (178 tags recovered) exhibited the latest, most protracted, return timing; tagged fish bound for this system were present at Canyon Island between statistical weeks 26 to 36 (June 22 to September 6). The peak week of migration for Tatsamenie Lake sockeye was statistical week 31 (July 27 to August 02).

The 2002 migration rate patterns for Kuthai, Little Trapper, and Tatsamenie lakes sockeye salmon are similar to those observed in other years.

Inriver Sockeye Salmon Migration Rates

Similar to previous seasons, migration rates generally increased over the course of the run (Table 9c). Kuthai Lake fish tagged in statistical week 23 averaged 40.0 days in transit, while those tagged in statistical week 26 averaged 35.4 days. For the Tatsamenie stock, fish tagged in statistical week 29 averaged 45.2 days in transit while fish tagged in statistical week 32 averaged 39.6 days. Little Trapper Lake fish tagged in statistical week 26 averaged 33.3 days in transit while those tagged in statistical week 30 averaged 18.9 days.

Age, Length, and Sex Composition

For sockeye salmon sampled at Canyon Island in 2002, age-1.3 fish were most prevalent (43.9%) with age-1.2 fish comprising 37.1%, age-0.2 8.9%, age-1.1 2.8%, age-0.3 2.6%, age-2.2 2.0%, age-2.3 1.7%, and very small numbers of age-0.1, 0.4, and 1.4 fish (Table 6). Age 1.1, 0.3, 1.3, 2.2, 1.4, and 2.3 sockeye salmon were slightly larger than the 1983 to 2001 average (Table 10). Male sockeye salmon were more prevalent (59%) than females (Appendix D.5).

Fish wheel catches of chum salmon were primarily comprised of age-0.4 (53.5%) fish, similar to the 1983 to 2001 average of 51% (Table 11). Age-0.3 fish constituted 45.8% of the fish wheel catch. There was a 1:1 ratio of male to female chum salmon (Appendix D.2). The average length at age for chum salmon passing Canyon Island was 610, 649, and 669 mm (MEF) for age 0.2, 0.3, and 0.4 fish respectively (Table 12).

DISCUSSION

The accuracy of mark-recapture studies in providing estimates of abundance is dependent on the degree to which the underlying assumptions of the analytical methods used are satisfied. We have chosen to use a stratified Darroch type estimator for our Taku River sockeye abundance estimates because we have different capture probabilities in the tagging and recovery strata due, primarily, to fluctuations in river level. In estimating the abundance of adult sockeye salmon in the Taku River we assumed: (a) tagging of adult sockeye salmon was in proportion to their numbers immigrating over time; (b) no sockeye salmon entered or left the system between the tagging and recovery events or sockeye salmon that made up the population of the capture strata have a non-zero probability of recapture during the recovery event; (c) no tag-induced mortality occurred; (d) the probability of recovering sockeye salmon is independent of its tagged/untagged status. Assumptions underlying this model, outlined above, have been examined at various times during the course of this project (Kelley et al. 1997, McGregor et al. 1991).

With respect to assumption (a), tagging efforts at the Taku River fish wheels and recovery efforts at the Canadian commercial and test fisheries were conducted on a frequent basis through the season. Both of the fish wheels were strictly maintained and adjusted throughout the entire sockeye salmon run. The wheels operated 24-hours per day except during equipment breakdowns, however it is known that river conditions affect the fishing efficiencies of both wheels. Recovery efforts were conducted a minimum of twice per week throughout the season, but water conditions can also affect the efficiency of commercial and test fishery set and drift nets. We are able to work around these variations in gear efficiency by using the Darroch stratified estimator for generating abundance estimates; this allows the probabilities of capture in tagging and recovery strata to vary across time but not within these strata.

It was likely that assumption (b) was violated in recent years of the Taku sockeye mark–recapture program because there were significant differences in the cumulative distribution function of length between fish sampled at the fish wheels and at the recovery location (Figure 5a-c). Smaller fish were more prevalent in fish wheel samples than among the recovery samples. Stratification of mark–recapture data by size would remove possible bias in population estimates caused by differences in capture probabilities due to fish size (Bernard and Hansen 1992). The summed abundance estimates obtained for large and small sockeye salmon separately were not significantly different than the pooled estimates. Based on those results the mark-recapture data for 1998 to 2002 was not examined by fish size. We were able to make some correction for this possible bias by completely removing smaller "jack" salmon (less than or equal to 360 mm MEF length) from tag and recovery data.

We were able to assess the short-term loss of tags caused by physical breakage or shedding. Fish that lose their spaghetti tags are readily identifiable by the presence of entrance and exit holes just below the dorsal fin created during tag application. Those holes effectively serve as a secondary mark. A substantial number of fish were recaptured in the fish wheels shortly after tagging. In the fish wheels, no sockeye or coho salmon were found throughout the season that had the needle hole "secondary mark" and no spaghetti tag. These results are consistent with those observed in previous years. In addition, in statistical weeks 26 through 35, an annual average of over 2,200 fish were examined daily for tagging needle marks in the Canadian commercial fishery, after fishers had removed tags. The numbers of tagging needle holes was compared with tag recovery rates, and found to be consistently lower throughout the fishing season (Appendix E.1 – E.4).[6] This does not support the hypothesis that there is tag loss between the fish wheels and the fishery. We therefore believe that breakage or shedding of tags among sockeye subjected to the inriver fishery is minimal or nonexistent. The close proximity of the fishery to the tagging site (4 km) results in a very short travel time between the two locations.

Other data that can be used to infer the degree of short term tag loss are the tagged to untagged ratios of fish in the inriver fishery and at upstream recovery locations. In the inriver commercial fishery the tagged to untagged ratio for sockeye salmon averaged 3.8% during the time period from 1998 to 2002, while at Little Trapper, Tatsamenie and Kuthai lakes it was 3.1%, 4.5%, and approximately 2.3% respectively. While this data is not conclusive evidence that significant tag loss is not occurring, it does generally support the findings of more rigorous experiments; short-term tag loss appears to be negligible for the sockeye mark-recapture program. If tag loss is occurring it would be most pronounced at the upstream locations due to increased travel time (Table 9a – 9e).

No substantial modifications, other than stronger welds on the basket components, were made to the fish wheel design during 1998 to 2002. We did not use fish wheel configurations other than a 2-basket configuration for the entire season. The current aluminum basket and paddle designs are, in general, working exceptionally well. A significant amount of time has been saved by not having to switch from 3- or 4-basket configurations in response to fluctuating water levels. In addition, the total time required for fish wheel maintenance has been substantially reduced which increases the amount of time the fish wheels are actually fishing.

[6] There was no secondary marking study to test for short term tag loss in 1998.

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Table 1. Canyon Island fish wheel dates of operation and catches of sockeye, pink, and chum salmon, 1984 to 2002.

Year	Dates of Operation	Sockeye	Pink	Chum	Dolly Varden	Steelhead
1984	6/15-9/18	2,334	20,751	316	NA	NA
1985	6/16-9/21	3,601	27,670	1,376	NA	NA
1986	6/14-8/25	5,808	7,256	80	2,716	14
1987	6/15-9/20	4,307	42,786	1,533	868	38
1988	5/12-9/19	3,292	3,982	1,089	701	37
1989	5/5-10/1	5,650	31,189	645	1,308	34
1990	5/3-9/23	6,091	13,358	748	1,433	33
1991	6/8-10/15	5,102	23,553	1,063	326	135
1992	6/20-9/24	6,279	9,252	189	241	22
1993	6/12-9/29	8,975	1,625	345	375	30
1994	6/10-9/21	6,485	27,100	367	584	107
1995	5/4-9/27	6,228	1,712	218	509	65
1996	5/3-9/20	5,919	21,583	388	681	65
1997	5/3-10/1	5,708	4,962	485	454	102
1998	5/2-9/15	4,230	23,321	167	323	120
1999	5/14-9/28	4,636	23,448	164	330	76
2000	5/14-9/28	5,865	6,529	422	244	159
2001	5/27-9/27	6,201	9,134	250	196	125
2002	5/19-9/14	5,812	5,672	195	419	90
Average (84-01)		5,373	16,623	547	706	73
Average (84-97)		5,413	16,913	632	850	57
Average (84-98)		5,334	17,340	601	809	62
Average (84-99)		5,290	17,722	573	775	63
Average (84-00)		5,324	17,063	564	740	69

Table 2a. Summary of Canyon Island sockeye salmon tag recoveries by location, 1998.

Location	Tags Recovered	Observed Only	Total	Percent Tags Reported	Weir Count	Percent Tagged
Canadian Commercial	772	0	772	54.1%		
Test Fishery	0	0	0	0.0%		
Aboriginal Fishery	0	0	0	0.0%		
Tatsatua Creek	0	0	0	0.0%		
Taku River mainstem	12	0	12	0.8%		
Tatsamenie Lake	238	20	258	18.1%	5,997	4.3%
Little Trapper Lake	260	28	288	20.2%	8,717	3.3%
U.S. Downstream	21	0	21	1.5%		
Tulsequah River	0	0	0	0.0%		
Nahlin River	8	5	13	0.9%		
Kuthai Lake	62	2	64	4.5%	1,934	3.3%
Total	1,373	75	1,428	100.0%		

Table 2b. Summary of Canyon Island sockeye salmon tag recoveries by location, 1999.

Location	Tags Recovered	Observed Only	Total	Percent Tags Reported	Weir Count	Percent Tagged
Canadian Commerical	728	0	728	49.7%		
Test Fishery	4	0	4	0.3%		
Aboriginal Fishery	2	0	2	0.1%		
Tatsatua Creek	0	0	0	0.0%		
Taku River mainstem	14	0	14	1.0%		
Tatsamenie Lake	85	40	125	8.5%	2,104	5.9%
Little Trapper Lake	358	2	360	24.6%	11,805	3.0%
U.S. Downstream	41	0	41	2.8%		
Tulsequah River	0	0	0	0.0%		
Nahlin River	1	5	6	0.4%		
Kuthai Lake	164	20[a]	184	12.6%	10,042	1.8%
Total	1,397	67	1,464	100.0%		

Table 2c. Summary of Canyon Island sockeye salmon tag recoveries by location, 2000.

Location	Tags Recovered	Observed Only	Total	Percent Tags Reported	Weir Count	Percent Tagged
Canadian Commercial	1,269	0	1,269	59.4%		
Test Fishery	17	0	17	0.8%		
Aboriginal Fishery	0	0	3	0.1%		
Tatsatua Creek	0	0	0	0.0%		
Taku River mainstem	0	0	0	0.0%		
Tatsamenie Lake	322	7	329	15.4%	7,575	4.3%
Little Trapper Lake	292	85	377	17.6%	11,551	3.3%
U.S. Downstream	26	0	26	1.2%		
Tulsequah River	0	0	0	0.0%		
Nahlin River	1	0	1	0.0%		
Kuthai Lake	112	2	114	5.3%	4,096	2.8%
Total	2,039	94	2,136	100.0%		

Table 2d. Summary of Canyon Island sockeye salmon tag recoveries by location, 2001.

Location	Tags Recovered	Observed Only	Total	Percent Tags Reported	Weir Count	Percent Tagged
Canadian Commercial	1,360	0	1,360	47.0%		
Test Fishery	1	0	1	0.0%		
Aboriginal Fishery	0	0	0	0.0%		
Tatsatua Creek	0	0	0	0.0%		
Taku River mainstem	7	2	9	0.3%		
Tatsamenie Lake	709	273	982	34.0%	22,575	4.3%
Little Trapper Lake	296	180	476	16.5%	16,860	2.8%
U.S. Downstream	37	0	37	1.3%		
Tulsequah River	0	0	0	0.0%		
Nahlin River	0	0	0	0.0%		
Kuthai Lake	25	2	27	0.9%	1,663	1.6%
Total	2,435	457	2,892	100.0%		

Table 2e. Summary of Canyon Island sockeye salmon tag recoveries by location, 2002.

Location	Tags Recovered	Observed Only	Total	Percent Tags Reported	Weir Count	Percent Tagged
Canadian Commercial	1,251	0	1,251	62.0%		
Test Fishery	17	0	17	0.8%		
Aboriginal Fishery	0	0	0	0.0%		
Tatsatua Creek	0	0	0	0.0%		
Taku River mainstem	9	0	9	0.4%		
Tatsamenie Lake	178	25	203	10.1%	5,495	3.7%
Little Trapper Lake	242	124	366	18.1%	11,484	3.2%
U.S. Downstream	37	0	37	1.8%		
Tulsequah River	0	0	0	0.0%		
Nahlin River	0	0	0	0.0%		
Kuthai Lake	135	0	135	6.7%	7,697	1.8%
Total	1,869	149	2,018	100.0%		

Table 3a. Tagging and recovery data from the 1998 Taku River sockeye salmon mark-recapture program. Data includes number of sockeye salmon tagged and recovered in the Canadian commercial fishery by statistical week (downstream recoveries excluded).

Statistical Week of Tagging	Statistical Week of Recovery																Total Tags Recovered	Total Tags Applied	Tag Ratio Recovered/ Applied
	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40			
23																	0	13	0.000
24	7	1															8	62	0.129
25	1	58	1														60	288	0.208
26		29	37	2	1												69	419	0.165
27			111	21	5												137	569	0.241
28				25	16	2											43	291	0.148
29					50	37	1										88	442	0.199
30						36	29	1									66	406	0.163
31							26	72	2	3							103	423	0.243
32								18	31								49	228	0.215
33									38	10	2						50	203	0.246
34										48	13	2					63	245	0.257
35											22	5					27	116	0.233
36												9					9	54	0.167
37																	0	15	0.000
38																	0	13	0.000
39																	0	6	0.000
Total	8	88	149	48	72	75	56	91	71	61	37	16	0	0	0	0	772	3,793	0.204
Sockeye Examined[a]:																	Total		
Can Comm. Catch	278	1,225	2,585	1,129	1,776	3,336	1,360	4,597	1,084	806	627	217	0	13	5	0	19,038		

[a] Equals the number examined for Canyon Island tags.

Table 3b. Tagging and recovery data from the 1999 Taku River sockeye salmon mark-recapture program. Data includes number of sockeye salmon tagged and recovered in the Canadian commercial fishery by statistical week (downstream recoveries excluded).

Statistical Week of Tagging	Statistical Week of Recovery																	Total Tags Recovered	Total Tags Applied	Tag Ratio Recovered/ Applied
	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40			
24			7	1														8	72	0.111
25			21	1														22	120	0.183
26			1	20														21	141	0.149
27				73	64	2												139	654	0.213
28					113	22	4	1										140	887	0.158
29						9	35								1			45	467	0.096
30							44	39					1					84	531	0.158
31								57	26	1		1						85	479	0.177
32									40	35	2	1						79	337	0.234
33										16	8	11	2	1	1			38	223	0.170
34											6	9				1		16	71	0.225
35												32	10					42	146	0.288
36													11		1		1	13	51	0.255
37														2				2	26	0.077
38																		0	33	0.000
39																		0	8	0.000
Total	0	0	29	95	177	33	83	97	66	52	16	54	24	3	3	1	1	734	4246	0.173
Sockeye Examined[a]:																		Total		
Test Fishery	19	18													34	5	5	81		
Can. Comm. Catch			764	4,343	5,562	662	2,541	2,375	1,190	1,049	614	943	635	3				20,681		
Aboriginal Fishery														18	13			31		
Total	19	18	764	4,343	5,562	662	2,541	2,375	1,190	1,049	614	943	635	21	47	5	5	20,793		

Table 3c. Tagging and recovery data from the 2000 Taku River sockeye salmon mark-recapture program. Data includes number of sockeye salmon tagged and recovered in the Canadian commercial fishery by statistical week (downstream recoveries excluded).

Statistical Week of Tagging	Statistical Week of Recovery															Total Tags Recovered	Total Tags Applied	Tag Ratio Recovered/ Applied
	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38			
23																0	8	0.000
24	4	3	12	2												21	157	0.134
25	3	6	28													37	227	0.163
26			25	45	4											74	463	0.160
27				73	106	5	2		1							187	780	0.240
28					65	61	2									128	529	0.242
29						92	29		1	1	1					124	471	0.263
30							118	18	6		2					144	544	0.265
31								6	31			1	1			39	206	0.189
32									115	137	5	9	5	1		272	925	0.294
33										118	41	8	1			168	715	0.235
34											41	25	1	1		68	260	0.262
35												15	3			18	107	0.168
36													4	1	1	6	32	0.188
Total	7	9	65	120	175	158	151	24	154	256	90	58	15	3	1	1,286	5,424	0.237
Sockeye Examined*:																Total		
Test Fishery	44	265													6	315		
Can. Comm. Catch			980	3,518	2,211	3,249	5,094	731	5,504	4,690	1,142	500	231	92		27,942		
Aboriginal Fishery															1	1		
Total	44	265	980	3,518	2,211	3,249	5,094	731	5,504	4,690	1,142	500	231	92	7	28,258		

Table 3d. Tagging and recovery data from the 2001 Taku River sockeye salmon mark-recapture program. Data includes number of sockeye salmon tagged and recovered in the Canadian commercial fishery by statistical week (downstream recoveries excluded).

Statistical Week of Tagging	Statistical Week of Recovery															Total Tags Recovered	Total Tags Applied	Tag Ratio Recovered/ Applied
	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37			
22																0	2	0.000
23																0	42	0.000
24			18													18	133	0.135
25			21	24	1											46	233	0.197
26				64	63	2	2									131	571	0.229
27					131	26	4									161	549	0.293
28						81	18	2								101	363	0.278
29							133	60	16	2	3	1				215	821	0.262
30								116	125	11	5	2				259	1301	0.199
31									142	48	13	1				204	576	0.354
32										80	56	7				143	420	0.340
33											55	20				75	229	0.328
34												7				7	89	0.079
35																0	53	0.000
36														1		1	25	0.040
37																0	5	0.000
Total			39	88	195	109	157	178	283	141	132	38		1		1,361	5,412	0.251
Sockeye Examined:																Total		
Test Fishery	43	200											11	56	18	328		
Can. Comm. Catch[a]			2,117	4,310	3,924	3,094	9,641	7,396	8,453	5,463	2,813	449				47,660		
Total	43	200	2,117	4,310	3,924	3,094	9,641	7,396	8,453	5,463	2,813	449	11	56	18	47,988		

Table 3c. Tagging and recovery data from the 2002 Taku River sockeye salmon mark-recapture program. Data includes number of sockeye salmon tagged and recovered in the Canadian commercial fishery by statistical week (downstream recoveries excluded).

Statistical Week of Tagging	Statistical Week of Recovery																				Total Tags Recovered	Total Tags Applied	Tag Ratio Recovered/ Applied
	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41			
22		1																			1	10	0.100
23		1	5	1																	7	100	0.070
24			3	51	2																56	525	0.107
25				10	45																55	403	0.136
26					169	64	9														242	849	0.285
27						139	41	5													185	742	0.249
28							155	31	3	1											190	675	0.281
29								266	32	5											303	916	0.331
30									33	49	3										85	371	0.229
31										33	36				1						70	296	0.236
32											39	8	1								48	234	0.205
33												1									1	39	0.026
34																					0	97	0.000
35														1	2						3	61	0.049
36															2						2	26	0.077
37																					0	3	0.000
Total	0	2	8	62	216	203	205	302	68	88	78	9	1	1	5	0	0	0	0	0	1,248	5,347	0.233
Sockeye Examined[a]:																					Total		
Test Fishery	1	114	400										23	60	60	13	7	1	2	1	682		
Can. Comm. Catch				1,869	5,394	5,131	5,668	6,733	1,780	1,828	2,493	157									31,053		
Total	1	114	400	1,869	5,394	5,131	5,668	6,733	1,780	1,828	2,493	157	23	60	60	13	7	1	2	1	31,735		

Table 4a. Pooled-strata tagging and recovery data used to calculate mark-recapture estimates of the inriver sockeye salmon run past Canyon Island, 1998.

Statistical Week of Tagging	Statistical Week of Recovery							Total Tags Recovered	Total Tags Applied	Tag Ratio Recovered/ Applied
	25	26-27	28-29	30	31	32	33-40			
23-24	7	1						8	75	0.107
25	1	59						60	288	0.208
26		66	3					69	419	0.165
27		111	26					137	569	0.241
28			41	2				43	291	0.148
29			50	37	1			88	442	0.199
30				36	29	1		66	406	0.163
31					26	72	5	103	423	0.243
32						18	31	49	228	0.215
33							50	50	203	0.246
34							63	63	245	0.257
35							27	27	116	0.233
36-39							9	9	88	0.102
Total	8	237	120	75	56	91	185	772	3,793	0.204
Catch Examined For Tags	278	3,810	2,905	3,336	1,360	4,597	2,752	19,038		
Marked Fraction	0.03	0.07	0.04	0.02	0.04	0.02	0.07	0.042		
Total Above-Border Run	2,785	18,063	17,065	14,894	10,329	14,363	12,494	89,992		
Aboriginal Fishery[a]								239		
95% Lower C.I.	807	15,766	12,589	4,342	4,168	6,346	10,784	79,984		
95% Upper C.I.	4,763	20,359	21,540	25,446	16,490	22,380	14,204	100,001		
Wheel CPUE Expansion[b]								1,556		
Spawning Escapement	2,507	14,253	14,160	11,558	8,969	9,766	9,742	72,271		

[a] Represents sockeye taken in the aboriginal fishery that were not checked for tags.

[b] The cumulative proportion of the fish wheel Catch Per Unit Effort (CPUE) shows that 1.7% of the sockeye run (1,556 fish) migrated past Canyon Island during statistical weeks 22 and 23. This early segment of the run expands the border run size from 89,992 to 91,548.

Table 4b. Pooled-strata tagging and recovery data used to calculate mark-recapture estimates of the inriver sockeye salmon run past Canyon Island, 1999.

Statistical Week of Tagging	Statistical Week of Recovery									Total Tags Recovered	Total Tags Applied	Tag Ratio Recovered/ Applied
	24-26	27	28	29	30-31	32-33	34	35-36	37-40			
24	7	1								8	72	0.111
25	21	1								22	120	0.183
26	1	20	64							85	141	0.603
27		73	113	2						188	654	0.287
28				22	5					27	887	0.030
29				9	35				1	45	467	0.096
30					83			1		84	531	0.158
31					57	27		1		85	479	0.177
32						75	2	1		78	337	0.231
33						16	8	13	2	39	223	0.175
34							6	9	1	16	71	0.225
35								42		42	146	0.288
36								11	2	13	51	0.255
37-39									2	2	67	0.030
Total	29	95	177	33	180	118	16	78	8	734	4,246	0.173
Catch Eaxmined For Tags	801	4,343	5,562	662	4,916	2,239	614	1,578	78	20,793		
Marked Fraction	0.04	0.02	0.03	0.05	0.04	0.06	0.03	0.05	0.11	0.037		
Total Above-Border Run	5,070	28,332	11,519	18,054	30,984	9,777	2,788	5,324	1,858	113,706		
Aboriginal Fishery[a]									351	351		
95% Lower C.I.	3,264	18,610	-5,731	7,433	26,081	7,759	-2,355	4,039	30	103,194		
95% Upper C.I.	6,877	38,054	28,769	28,676	35,887	11,794	7,931	6,609	3,687	124,218		
Spawning Escapement	4,269	23,989	5,957	17,392	26,068	7,538	2,174	3,746	1,429	92,562		

[a] Represents sockeye taken in the aboriginal fishery that were not checked for tags.

Table 4c. Pooled-strata tagging and recovery data used to calculate mark-recapture estimates of the inriver sockeye salmon run past Canyon Island, 2000.

Statistical Week of Tagging	Statistical Week of Recovery									Total Tags Recovered	Total Tags Applied	Tag Ratio Recovered/ Applied
	24-25	26	27	28	29	30-32	33	34	35-38			
23-24	7	12	2							21	165	0.127
25	9	28								37	227	0.163
26		25	45	4						74	463	0.160
27			73	106	5	3				187	780	0.240
28				65	61	2				128	529	0.242
29					92	30	1	1		124	471	0.263
30						142		2		144	544	0.265
31						37			2	39	206	0.189
32						115	137	5	15	272	925	0.294
33							118	41	9	168	715	0.235
34								41	27	68	260	0.262
35									18	18	107	0.168
36									6	6	32	0.188
Total	16	65	120	175	158	329	256	90	77	1,286	5,424	0.237
Catch Examined For Tags[a]	309	980	3,518	2,211	3,249	11,329	4,690	1,142	830	28,258		
Marked Fraction	0.05	0.07	0.04	0.09	0.05	0.03	0.06	0.09	0.10	0.048		
Total Above-Border Run	620	8,948	15,429	9,247	12,572	43,383	16,501	4,726	4,268	115,693		
Aboriginal Fishery[b]									137	137		
95% Lower C.I.	-3,723	3,701	7,106	6,214	9,958	38,242	13,430	2,738	2,913	107,815		
95% Upper C.I.	4,962	14,194	23,753	12,280	15,186	48,523	19,572	6,713	5,623	123,570		
Spawning Escapement	311	7,968	11,911	7,036	9,323	32,054	11,811	3,584	3,301	87,298		

[a] Equals the number of sockeye examined for Canyon Island tags in the Canadian Commercial, Test, and Aboriginal Fisheries.

[b] Represents sockeye taken in the aboriginal fishery that were not checked for tags.

Table 4d. Pooled-strata tagging and recovery data used to calculate mark-recapture estimates of the inriver sockeye salmon run past Canyon Island, 2001.

Statistical Week of Tagging	Statistical Week of Recovery									Total Tags Recovered	Total Tags Applied	Tag Ratio Recovered/ Applied
	23-25	26	27	28	29	30	31	32	33-37			
22-25	39	24	1							64	410	0.156
26		64	63	2	2					131	571	0.229
27			131	26	4					161	549	0.293
28				81	18	2				101	363	0.278
29					133	60	16	2	4	215	821	0.262
30						116	125	11	7	259	1301	0.199
31							142	48	14	204	576	0.354
32								80	63	143	420	0.340
33									75	75	229	0.328
34-37									8	8	172	0.047
Total	39	88	195	109	157	178	283	141	171	1,361	5,412	0.251
Catch Eaxmined For Tags	2,360	4,310	3,924	3,094	9,641	7,396	8,453	5,463	3,347	47,988		
Marked Fraction	0.017	0.021	0.052	0.037	0.017	0.025	0.035	0.026	0.054	0.029		
Total Above-Border Run	16,740	23,344	13,219	11,735	21,890	55,142	26,132	7,896	16,170	192,269		
Aboriginal Fishery[b]									210	210		
95% Lower C.I.	10,693	16,895	10,994	9,264	11,475	44,152	21,219	1,758	13,072	180,307		
95% Upper C.I.	22,787	29,793	15,444	14,206	32,306	66,131	31,045	14,033	19,268	204,231		
Spawning Escapement	14,380	19,034	9,295	8,641	12,249	47,746	17,679	2,433	12,613	144,071		

[a] Equals the number of sockeye examined for Canyon Island tags in the Canadian Commercial and Test Fisheries.

[b] Represents sockeye taken in the aboriginal fishery that were not checked for tags.

Table 4c. Pooled-strata tagging and recovery data used to calculate mark-recapture estimates of the inriver sockeye salmon run past Canyon Island, 2002.

Statistical Week of Tagging	Statistical Week of Recovery 22-28	29-31	32	33-41	Total Tags Recovered	Total Tags Applied	Tag Ratio Recovered/ Applied
22-23	8				8	110	0.073
24	56				56	525	0.107
25	55				55	403	0.136
26	242				242	849	0.285
27	180	5			185	742	0.249
28	155	35			190	675	0.281
29		303			303	916	0.331
30		82	3		85	371	0.229
31		33	36	1	70	296	0.236
32			39	9	48	234	0.205
33-37				6	6	226	0.027
Total	696	458	78	16	1,248	5,347	0.233
Catch Eaxmined For Tags	18,577	10,341	2,493	324	31,735		
Marked Fraction	0.04	0.05	0.03	0.05	0.041		
Total Above-Border Run	85,114	33,968	7,952	8,200	135,233		
Aboriginal Fishery[b]				155	155		
95% Lower C.I.	79,458	82,274	28,712	3,238	127,768		
95% Upper C.I.	90,770	87,954	39,224	12,666	142,698		
Spawning Escapement	66,537	23,627	5,459	7,721	103,343		

[a] Equals the number of sockeye examined for Canyon Island tags in the Canadian Commercial and Test Fisheries.

[b] Represents sockeye taken in the aboriginal fishery that were not checked for tags.

Table 5. Historical sockeye salmon above border abundance, above border harvests, and escapement for the Taku River, 1984 to 2002.

Year	Above Border Run	Inriver Harvest	Inriver Harvest Rate	Above Border Escapement	Total Run	U.S. Catch
1984	141,254	27,292	0.193	113,962	199,796	58,543
1985	123,974	14,411	0.116	109,563	198,703	74,729
1986	115,045	14,939	0.130	100,106	175,980	60,934
1987	96,023	13,887	0.145	82,136	151,178	55,154
1988	92,641	12,967	0.140	79,674	118,452	25,811
1989	114,068	18,805	0.165	95,263	177,435	63,367
1990	117,573	21,474	0.183	96,099	226,865	109,292
1991	154,873	25,380	0.164	129,493	259,804	104,931
1992	167,376	29,862	0.178	137,514	291,031	123,655
1993	142,148	33,523	0.236	108,625	284,387	142,239
1994	131,580	29,001	0.220	102,579	229,737	98,157
1995	146,450	32,711	0.223	113,739	238,448	91,998
1996	134,651	42,025	0.312	92,626	323,047	188,396
1997	95,438	24,352	0.255	71,086	174,779	79,341
1998	91,548	19,038	0.208	72,271	144,374	50,646
1999	113,705	20,681	0.182	92,562	183,885	64,581
2000	115,693	27,942	0.242	87,298	236,581	132,846
2001	192,269	47,988	0.250	144,071	400,715	208,470
2002	135,233	31,053	0.230	103,343	258,516	117,453
Average(84-01)	127,017	25,349	0.197	101,506	223,066	96,283
Maximum(84-01)	192,269	47,988	0.312	144,071	400,715	208,470
Minimum(84-01)	91,548	12,967	0.116	70,715	118,452	25,811
S.D.(84-01)	26,591	9,486	0.050	20,375	68,540	47,266
C.V.(84-01)	20.9%	37.4%	25.5%	20.1%	30.7%	49.1%
Average(84-97)	126,650	24,331	0.190	102,319	217,832	91,182
Average(84-98)	124,309	23,978	0.191	100,212	212,934	88,480
Average(84-99)	123,647	23,772	0.191	99,734	211,119	86,986
Average(84-00)	123,179	24,017	0.194	99,002	212,617	89,684

Table 6. Historical age composition of sockeye salmon passing Canyon Island, Taku River, 1983 to 2002.

Year	Sample Size	Percent By Age Class													
		0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2	2.4	3.3
1983	1,574	0.0	0.4	0.0	5.7	16.6	0.0	0.0	62.5	7.6	0.2	7.4	0.0	0.0	0.1
1984	1,583	0.3	2.1	1.8	11.5	15.4	0.2	0.2	57.0	9.2	0.3	2.8	0.0	0.0	0.0
1985	2,437	0.3	6.0	4.1	4.0	17.2	0.4	0.4	53.8	8.7	0.7	4.8	0.0	0.1	0.0
1986	3,468	0.0	2.9	0.4	6.3	29.7	0.1	0.0	50.2	2.4	0.3	8.0	0.0	0.0	0.0
1987	2,987	0.8	1.0	5.0	12.7	17.3	2.0	0.2	54.2	2.3	0.2	4.6	0.0	0.1	0.0
1988	2,450	0.3	6.5	6.2	8.0	29.8	0.3	0.0	38.7	5.6	0.2	4.6	0.1	0.0	0.0
1989	4,272	0.3	3.0	4.2	7.0	19.5	0.4	0.0	58.3	3.3	0.2	4.0	0.0	0.0	0.0
1990	4,489	0.4	4.9	3.6	4.7	26.3	0.2	0.1	48.5	6.4	0.3	4.8	0.0	0.0	0.0
1991	3,594	0.1	7.9	3.3	9.5	31.4	0.8	0.1	37.7	4.9	0.3	4.4	0.0	0.0	0.0
1992	1,678	0.3	7.1	3.0	12.3	26.7	0.7	0.1	41.2	3.8	0.0	5.4	0.0	0.0	0.0
1993	2,593	0.2	4.3	3.2	11.0	15.6	0.7	0.0	55.5	4.9	0.2	4.9	0.0	0.0	0.0
1994	2,789	1.0	5.1	5.2	9.4	17.3	0.1	0.0	55.2	4.0	0.1	3.0	0.0	0.0	0.0
1995	3,461	0.3	14.6	3.0	4.0	32.9	0.1	0.1	36.3	5.8	0.1	3.0	0.0	0.0	0.0
1996	2,659	0.1	3.8	1.3	18.3	17.1	0.1	0.0	51.1	5.9	0.2	2.1	0.0	0.0	0.0
1997	2,787	0.1	1.4	1.8	9.4	27.4	0.2	0.2	44.5	7.3	0.1	7.6	0.1	0.0	0.0
1998	2,429	0.1	2.4	5.2	0.8	19.7	0.3	0.0	60.4	6.9	0.2	4.0	0.0	0.0	0.1
1999	2,261	0.9	4.8	6.5	2.5	39.9	1.1	0.0	30.3	12.1	0.1	1.7	0.0	0.0	0.0
2000	2,305	0.0	6.3	1.2	8.6	34.5	0.2	0.0	42.3	4.6	0.1	2.0	0.0	0.0	0.0
2001	2,145	0.5	2.2	8.3	9.7	21.4	0.3	0.0	53.8	2.1	0.1	1.4	0.0	0.0	0.0
2002	2,460	0.3	8.9	2.8	2.6	37.1	0.0	0.2	43.9	2.0	0.4	1.7	0.0	0.0	0.0
Average(83-01)	2,735	0.3	4.6	3.5	8.2	24.0	0.4	0.1	49.0	5.7	0.2	4.2	0.0	0.0	0.0
SD(83-01)		0.3	3.2	2.2	4.2	7.5	0.5	0.1	9.1	2.6	0.1	1.9	0.0	0.0	0.0
CV(83-01)		94.0%	71.2%	61.9%	50.8%	31.3%	110.3%	149.0%	18.6%	45.6%	71.7%	45.7%	-	-	-
Average(83-97)	2,828	0.3	4.6	3.2	8.4	22.5	0.4	0.1	50.3	5.6	0.2	4.7	0.0	0.0	0.0
Average(83-98)	2,795	0.3	4.6	3.4	8.1	23.5	0.5	0.1	49.1	5.9	0.2	4.5	0.0	0.0	0.0
Average(83-99)	2,768	0.3	4.7	3.3	8.1	24.1	0.4	0.1	48.8	5.9	0.2	4.4	0.0	0.0	0.0
Average(83-00)	2,735	0.3	4.6	3.5	8.2	24.0	0.4	0.1	49.0	5.7	0.2	4.2	0.0	0.0	0.0

Table 7. Migratory timing statistics of sockeye, pink , and chum salmon past the Canyon Island fish wheels, 1984 to 2002. Timing statistics in 1984 were based on catch, all other years were based on fish wheel CPUE.

	Species					
	Sockeye		Pink		Chum	
Year	Mean Date	S.D.	Mean Date	S.D.	Mean Date	S.D.
1984	7/23	17.6	7/19	9.3	8/14	12.8
1985	7/24	18.1	7/19	8.5	9/8	11.8
1986	7/16	14.2	7/27	5.5	8/7	11.3
1987	7/24	15.8	7/19	9.3	9/8	10.5
1988	7/19	19.5	7/21	9.6	8/31	12.5
1989	7/14	20.1	7/18	7.8	9/13	15.9
1990	7/20	18.8	7/23	8.9	8/30	15.1
1991	7/24	20.6	7/23	6.6	9/11	13.0
1992	7/25	14.4	7/24	7.2	8/28	13.5
1993	7/21	16.9	7/15	8.9	9/7	14.4
1994	7/23	20.2	7/24	10.1	9/2	15.6
1995	7/22	22.0	7/14	7.8	9/3	9.8
1996	7/21	18.9	7/23	6.5	8/27	14.0
1997	7/26	23.9	7/14	10.0	9/5	11.6
1998	7/18	21.1	7/24	7.9	9/4	8.7
1999	7/18	19.5	7/24	7.9	9/3	14.5
2000	7/17	20.8	7/25	8.7	8/30	16.9
2001	7/20	18.0	7/18	8.4	9/2	13.4
2002	7/9	18.6	7/20	7.6	8/31	12.3
Average (84-01)[a]	7/21	18.9	7/21	8.3	9/3	13.1
Average (84-97)	7/22	18.6	7/20	8.3	9/1	13.0
Average (84-98)	7/21	18.8	7/21	8.3	9/1	12.7
Average (84-99)	7/21	18.9	7/21	8.2	9/1	12.8
Average (84-00)	7/21	19.0	7/21	8.2	9/1	13.1

Table 8a. Weekly and cumulative proportions of three individual sockeye salmon stocks passing Canyon Island in 1998, based on spawning ground tag recoveries expanded by fish wheel indices (fish wheel CPUE).

		Kuthai Lake		Little Trapper Lake		Tatsamenie Lake	
Statistical Week	Dates	Weekly Proportion	Cumul. Proportion	Weekly Proportion	Cumul. Proportion	Weekly Proportion	Cumul. Proportion
22	(5/24-5/30)						
23	(5/29-6/6)	0.01	0.01				
24	(6/7-6/13)	0.06	0.07				
25	(6/14-6/20)	0.45	0.52	0.01	0.01		
26	(6/21-6/27)	0.38	0.90	0.02	0.03		
27	(6/28-7/04)	0.10	1.00	0.20	0.22		
28	(7/05-7/11)			0.10	0.33	0.01	0.01
29	(7/12-7/18)			0.21	0.54	0.02	0.02
30	(7/19-7/25)			0.19	0.73	0.07	0.09
31	(7/26-8/01)			0.25	0.98	0.30	0.39
32	(8/02-8/08)			0.02	1.00	0.17	0.56
33	(8/09-8/15)					0.10	0.65
34	(8/16-8/22)					0.24	0.89
35	(8/23-8/29)					0.06	0.95
36	(8/30-9/05)					0.05	1.00
37	(9/06-9/12)					0.00	1.00

Table 8b. Weekly and cumulative proportions of three individual sockeye salmon stocks passing Canyon Island in 1999, based on spawning ground tag recoveries expanded by fish wheel indices (fish wheel CPUE).

		Kuthai Lake		Little Trapper Lake		Tatsamenie Lake	
Statistical Week	Dates	Weekly Proportion	Cumul. Proportion	Weekly Proportion	Cumul. Proportion	Weekly Proportion	Cumul. Proportion
22	(5/23-5/29)						
23	(5/30-6/5)						
24	(6/6-6/12)	0.11	0.11				
25	(6/13-6/19)	0.15	0.27				
26	(6/20-6/26)	0.17	0.44				
27	(6/27-7/03)	0.38	0.81	0.08	0.08	0.02	0.02
28	(7/04-7/10)	0.16	0.98	0.22	0.29	0.02	0.04
29	(7/11-7/17)	0.01	0.98	0.17	0.46	0.02	0.06
30	(7/18-7/24)	0.02	1.00	0.21	0.67	0.03	0.09
31	(7/25-7/31)			0.22	0.89	0.21	0.30
32	(8/01-8/07)			0.10	0.98	0.30	0.60
33	(8/08-8/14)			0.02	1.00	0.17	0.78
34	(8/15-8/21)					0.04	0.82
35	(8/22-8/28)					0.16	0.97
36	(8/29-9/04)					0.03	1.00

Table 8c. Weekly and cumulative proportions of three individual sockeye salmon stocks passing Canyon Island in 2000, based on spawning ground tag recoveries expanded by fish wheel indices (fish wheel CPUE).

		Kuthai Lake		Little Trapper Lake		Tatsamenie Lake	
Statistical Week	Dates	Weekly Proportion	Cumul. Proportion	Weekly Proportion	Cumul. Proportion	Weekly Proportion	Cumul. Proportion
22	(5/21-5/27)						
23	(5/28-6/3)						
24	(6/4-6/10)	0.05	0.05				
25	(6/11-6/17)	0.20	0.25				
26	(6/18-6/24)	0.37	0.61	0.01	0.01		
27	(6/25-7/1)	0.33	0.94	0.17	0.18		
28	(7/2-7/8)	0.04	0.98	0.25	0.44	0.01	0.01
29	(7/9-7/15)	0.02	1.00	0.19	0.63	0.00	0.01
30	(7/16-7/22)			0.22	0.85	0.06	0.06
31	(7/23-7/29)			0.06	0.91	0.07	0.13
32	(7/30-8/5)			0.08	0.99	0.32	0.45
33	(8/6-8/12)			0.01	1.00	0.40	0.85
34	(8/13-8/19)					0.10	0.94
35	(8/20-8/26)					0.05	0.99
36	(8/27-9/2)					0.01	1.00

Table 8d. Weekly and cumulative proportions of three individual sockeye salmon stocks passing Canyon Island in 2001, based on spawning ground tag recoveries expanded by fish wheel indices (fish wheel CPUE).

		Kuthai Lake		Little Trapper Lake		Tatsamenie Lake	
Statistical Week	Dates	Weekly Proportion	Cumul. Proportion	Weekly Proportion	Cumul. Proportion	Weekly Proportion	Cumul. Proportion
22	(5/27-6/2)						
23	(6/3-6/9)	0.03	0.03				
24	(6/10-6/16)	0.14	0.17				
25	(6/17-6/23)	0.08	0.25	0.01	0.01		
26	(6/24-6/30)	0.27	0.52	0.12	0.13		
27	(7/1-7/7)	0.18	0.70	0.18	0.31		
28	(7/8-7/14)	0.17	0.87	0.14	0.45	0.01	0.01
29	(7/15-7/21)	0.09	0.96	0.27	0.72	0.10	0.10
30	(7/22-7/28)	0.04	1.00	0.24	0.96	0.36	0.46
31	(7/29-8/4)			0.02	0.98	0.18	0.64
32	(8/5-8/11)			0.01	0.99	0.20	0.84
33	(8/12-8/18)			0.01	1.00	0.15	0.99
34	(8/19-8/25)					0.01	1.00

Table 8c. Weekly and cumulative proportions of three individual sockeye salmon stocks passing Canyon Island in 2002, based on spawning ground tag recoveries expanded by fish wheel indices (fish wheel CPUE).

		Kuthai Lake		Little Trapper Lake		Tatsamenie Lake	
Statistical Week	Date	Weekly Proportion	Cumul. Proportion	Weekly Proportion	Cumul. Proportion	Weekly Proportion	Cumul. Proportion
22	(5/25-5/31)						
23	(6/1-6/7)	0.09	0.09				
24	(6/8-6/14)	0.40	0.49				
25	(6/15-6-21)	0.20	0.69	0.01	0.01		
26	(6/22-6/28)	0.24	0.93	0.06	0.07	0.01	0.01
27	(6/29-7/5)	0.04	0.97	0.24	0.31	0.03	0.05
28	(7/6-7/12)	0.03	1.00	0.26	0.58	0.03	0.08
29	(7/13-7/19)			0.22	0.79	0.14	0.22
30	(7/20-7/26)			0.20	1.00	0.17	0.39
31	(7/27-8/2)					0.24	0.63
32	(8/3-8/9)					0.22	0.85
33	(8/10-8/16)					0.04	0.89
34	(8/17-8/23)					0.05	0.94
35	(8/24-8/30)					0.04	0.98
36	(8/31-9/6)					0.01	1.00

Table 9a. Inriver migration timing for three Taku River sockeye salmon stocks, 1998[a].

Stock	Week	Travel Time	SD	SE	N	95% C.I.
Tatsamenie	28	42.5	0.71	0.50	2	0.98
	29	37.0	6.81	2.57	7	5.04
	30	30.7	4.89	0.92	28	1.81
	31	29.4	7.70	1.04	55	2.04
	32	31.0	6.10	0.98	39	1.92
	33	26.9	4.14	0.62	45	1.21
	34	25.6	5.63	0.86	43	1.68
	35	21.3	3.82	1.10	12	2.16
	36	20.2	5.42	2.21	6	4.34
	Average	28.3				
L. Trapper	25	37.3	3.21	1.86	3	3.64
	26	33.6	2.70	0.90	9	1.76
	27	31.6	4.49	0.78	33	1.53
	28	25.2	4.82	0.79	37	1.55
	29	24.6	5.06	0.59	73	1.16
	30	22.5	2.95	0.37	62	0.73
	31	19.4	3.23	0.52	39	1.01
	32	16.0	3.74	1.87	4	3.67
	Average	24.6				
Kuthai	23	38.5	0.71	0.50	2	0.98
	24	39.6	10.66	3.37	10	6.61
	25	38.4	12.23	2.55	23	5.00
	26	31.4	7.73	1.69	21	3.31
	27	32.0	1.41	1.00	2	1.96
	Average	35.9				

[a] The average travel time for each weekly period was derived from the number of days the tagged fish took to travel between the tagging site and the recovery location.

Table 9b. Inriver migration timing for three Taku River sockeye salmon stocks, 1999[a].

Stock	Week	Travel Time	SD	SE	N	95% C.I.
Tatsamenie	27	71.0	14.14	10.00	2	19.6
	28	57.5	19.09	13.50	2	26.5
	29	45.5	0.71	0.50	2	0.98
	30	40.0	1.00	0.58	3	1.13
	31	33.8	3.07	0.70	19	1.38
	32	29.5	5.16	1.03	25	2.02
	33	30.7	9.79	2.53	15	4.96
	34	38.7	15.53	8.97	3	17.6
	35	25.5	3.91	1.18	11	2.31
	36	-	-	-	0	-
	37	23.5	12.02	8.50	2	16.7
	Average	32.8				
L. Trapper	27	33.0	2.97	0.57	27	1.12
	28	28.9	2.51	0.28	79	0.55
	29	24.2	5.52	0.68	66	1.33
	30	23.6	5.87	0.67	77	1.31
	31	25.0	4.04	0.46	76	0.91
	32	21.0	3.17	0.58	30	1.13
	33	18.7	3.79	2.19	3	4.28
	Average	25.6				
Kuthai	24	40.4	6.31	1.38	21	2.70
	25	35.0	5.50	1.17	22	2.30
	26	30.4	6.81	1.26	29	2.48
	27	30.4	9.15	1.18	60	2.32
	28	31.5	11.97	2.26	28	4.44
	29	38.0	-	-	1	-
	30	31.3	10.02	5.78	3	11.3
	Average	32.5				

[a] The average travel time for each weekly period was derived from the number of days the tagged fish took to travel between the tagging site and the recovery location.

Table 9c. Inriver migration timing for three Taku River sockeye salmon stocks, 2000[a].

Stock	Week	Travel Time	SD	SE	N	95% C.I.
Tatsamenie	28	44.5	0.71	0.50	2	0.98
	29	39.0	-	-	1	-
	30	32.9	2.34	0.57	17	1.11
	31	27.3	3.81	0.83	21	1.63
	32	26.8	5.56	0.56	99	1.10
	33	26.3	5.99	0.52	132	1.02
	34	34.5	7.91	1.44	30	2.83
	35	33.2	6.37	1.54	17	3.03
	36	27.0	2.00	1.15	3	2.26
	Average	28.1				
L. Trapper	26	41.5	0.71	0.50	2	0.98
	27	39.0	4.25	0.59	52	1.16
	28	34.8	6.29	0.72	77	1.40
	29	30.6	5.75	0.76	57	1.49
	30	27.9	4.10	0.52	63	1.01
	31	24.5	4.68	1.17	16	2.29
	32	21.5	5.24	1.12	22	2.19
	33	20.0	0.00	0.00	2	0.00
	34	26.0	-	-	1	-
	Average	31.6				
Kuthai	24	43.7	3.39	1.38	6	2.71
	25	44.0	7.17	1.46	24	2.87
	26	40.3	7.66	1.20	41	2.35
	27	38.6	7.41	1.25	35	2.46
	28	28.8	2.50	1.25	4	2.45
	29	35.0	0.00	0.00	2	0.00
	Average	40.2				

[a] The average travel time for each weekly period was derived from the number of days the tagged fish took to travel between the tagging site and the recovery location.

Table 9d. Inriver migration timing for three Taku River sockeye salmon stocks, 2001[a].

Stock	Week	Travel Time	SD	SE	N	95% C.I.
Tatsamenie	26	46.0	-	-	1	-
	27	41.0	-	-	1	-
	28	36.0	1.41	0.71	4	1.39
	29	31.6	3.64	0.42	74	0.83
	30	28.1	5.03	0.29	294	0.58
	31	28.7	5.26	0.48	120	0.94
	32	26.9	4.69	0.44	113	0.86
	33	27.3	5.09	0.65	61	1.28
	34	23.1	2.96	0.60	24	1.19
	35	20.2	3.10	0.78	16	1.52
	36	20.0	-	-	1	-
	Average	29.9				
L. Trapper	25	44.5	2.12	1.50	2	2.94
	26	36.4	3.96	0.62	41	1.21
	27	33.9	4.38	0.61	52	1.19
	28	29.2	4.83	0.75	41	1.48
	29	26.1	3.82	0.44	77	0.85
	30	21.4	2.97	0.34	74	0.68
	31	24.0	4.64	2.07	5	4.06
	32	17.0	1.41	1.00	2	1.96
	33	18.0	0.00	0.00	2	-
	Average	27.8				
Kuthai	23	46.0	-	-	1	-
	24	41.0	4.97	2.48	4	4.87
	25	34.0	5.66	4.00	2	7.84
	26	45.0	10.80	4.08	7	8.00
	27	36.3	4.11	2.06	4	4.03
	28	21.3	11.21	5.60	4	10.98
	29	20.5	7.78	5.50	2	10.78
	30	32.0	-	-	1	-
	Average	34.5				

[a] The average travel time for each weekly period was derived from the number of days the tagged fish took to travel between the tagging site and the recovery location.

Table 9e. Inriver migration timing for three Taku River sockeye salmon stocks, 2002[a].

Stock	Week	Travel Time	SD	SE	N	95% C.I.
Tatsamenie	25	62.0	-	-	1	-
	26	53.0	5.66	4.00	2	7.84
	27	47.3	5.28	2.16	6	4.22
	28	38.8	5.26	2.35	5	4.61
	29	45.2	8.67	1.89	21	3.71
	30	42.7	6.68	1.24	29	2.43
	31	41.7	3.68	0.58	41	1.13
	32	39.6	4.02	0.64	39	1.26
	33	34.6	4.50	1.70	7	3.34
	34	28.4	4.65	1.47	10	2.88
	35	25.6	3.88	1.29	9	2.53
	36	22.5	0.71	0.50	2	0.98
	Average	40.1				
L. Trapper	25	36.0	6.38	3.19	4	6.25
	26	33.3	6.05	1.26	23	2.47
	27	31.7	4.54	0.58	62	1.13
	28	27.9	2.81	0.33	71	0.65
	29	22.4	2.40	0.30	62	0.60
	30	18.9	3.55	0.95	14	1.86
	31	22.0	-	-	1	-
	Average	27.4				
Kuthai	22	49.0	-	-	1	-
	23	40.0	4.13	1.10	14	2.16
	24	37.7	7.34	0.97	57	1.91
	25	34.0	4.76	0.90	28	1.76
	26	35.4	6.20	1.19	27	2.34
	27	39.0	10.20	4.56	5	8.94
	28	41.0	1.00	0.58	3	1.13
	29	-	-	-	-	-
	Average	39.4				

[a] The average travel time for each weekly period was derived from the number of days the tagged fish took to travel between the tagging site and the recovery location.

Table 10. Historical length (MEF) at age composition of sockeye salmon passing Canyon Island, Taku River, 1983 to 2002.

	Sample	Length At Age Class													
Year	Size	0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	2.4	3.2	3.3
1983	1,573		447		577	469			578	522	618	582			
1984	1,572	297	445	315	575	476	320	610	576	511	580	589			
1985	2,422	309	457	337	572	486	372	609	579	510	597	590	625		
1986	3,362		449	305	584	493	310		582	491	598	581			
1987	2,923	316	460	319	587	463	329	610	592	494	565	592	650		
1988	2,422	313	443	319	576	482	324		578	480	600	578			
1989	4,254	315	442	340	578	468	334		591	488	619	589			
1990	4,432	316	427	326	570	470	322	612	574	485	578	576	555		
1991	3,581	313	442	322	561	463	321	610	569	482	602	572			
1992	1,667	351	431	328	564	467	345	585	568	482		569			
1993	2,582	316	440	327	555	470	333		558	507	573	556			
1994	2,784	329	431	327	559	455	325		557	497	585	561			
1995	3,435	324	455	329	563	481	357	625	562	509	630	569			
1996	2,649	300	472	323	581	489	338		583	524	607	587			
1997	2,770	310	461	332	579	503	339	581	580	514	585	574		490	
1998	2,427	313	445	327	578	483	346		569	510	579	575			555
1999	2,251	328	446	317	565	485	326	555	568	515	612	575		540	
2000	2,300	310	460	324	583	503	329		582	508	610	581			
2001	2,140	308	449	324	581	498	340	600	586	519	572	567			
2002	2,453	299	437	334	583	473	320	614	589	522	609	595			
Average(83-01)	2,700	315	447	325	574	479	333	601	576	504	596	578	610	515	555
SD(83-01)		12.6	11.4	8.1	9.4	13.7	14.7	19.9	10.3	14.8	18.5	10.6	49.2	35.4	
CV(83-01)		4.0%	2.5%	2.5%	1.6%	2.9%	4.4%	3.3%	1.8%	2.9%	3.1%	1.8%	8.1%	6.9%	-
Average(83-97)	2,829	316	447	325	572	476	334	605	575	500	596	578	610	490	
Average(83-98)	2,803	316	447	325	572	476	334	605	575	500	594	578	610	490	555
Average(83-99)	2,771	317	447	325	572	477	334	600	574	501	596	577	610	515	555
Average(83-00)	2,745	316	447	325	573	478	334	600	575	502	596	578	610	515	555

Table 11. Historical age composition of chum salmon passing Canyon Island, Taku River, 1983 to 2002.

Year	Sample Size	Percent by Age Class 0.2	0.3	0.4	0.5	0.6
1983	24	8.3	45.8	54.2	8.3	0.0
1984	280	2.5	85.0	13.6	0.0	0.0
1985	728	0.4	68.1	31.9	0.0	0.0
1986	64	0.0	51.6	51.6	0.0	0.0
1987	1075	1.0	48.6	48.8	2.0	0.0
1988	853	0.0	30.4	68.5	1.5	0.0
1989	574	0.5	77.4	19.5	3.1	0.3
1990	636	0.3	23.0	76.7	0.5	0.3
1991	missing data					
1992	163	0.0	56.4	37.4	8.0	0.0
1993	278	0.7	22.3	75.9	2.5	0.0
1994	310	0.6	32.6	63.2	4.8	0.0
1995	192	2.1	19.8	75.5	4.7	0.0
1996	351	1.1	68.4	23.4	7.1	0.0
1997	425	0.9	56.2	42.4	0.5	0.0
1998	152	0.7	27.6	67.8	3.9	0.0
1999	151	2.0	84.1	13.9	0.0	0.0
2000	273	0.0	75.5	24.5	0.0	0.0
2001	207	1.0	44.9	54.1	0.0	0.0
2002	144	0.7	45.8	53.5	0.0	0.0
Average (83-01)	374	1.2	51.0	46.8	2.6	0.0
SD (83-01)		1.9	21.9	21.9	2.9	0.1
Average (83-97)	425.2	1.3	49.0	48.8	3.1	0.0
Average (83-98)	407.0	1.3	47.5	50.0	3.1	0.0
Average (83-99)	391.0	1.3	49.8	47.8	2.9	0.0
Average (83-00)	384.1	1.2	51.3	46.4	2.8	0.0

Table 12. Historical length (MEF) at age composition of chum salmon passing Canyon Island, Taku River, 1983 to 2002.

Year	Sample Size	Length at Age Class 0.2	0.3	0.4	0.5	0.6
1983	24	599	651	658	714	
1984	279	615	630	683		
1985	727	592	658	680		
1986	63		640	666		
1987	1,061	579	642	668	668	
1988	845		642	675	690	
1989	571	587	628	669	678	680
1990	634	655	629	666	690	600
1991	missing data					
1992	163		614	656	667	
1993	277	510	598	638	616	
1994	310	660	610	645	660	
1995	192	556	632	652	663	
1996	350	595	642	662	684	
1997	424	651	640	673	693	
1998	151	600	634	662	703	
1999	149	615	644	664		
2000	273		650	680		
2001	207	528	623	665		
2002	144	610	649	669		
Average (83-01)	372	596	634	665	677	640
SD (83-01)		44.2	15.3	11.9	25.4	56.6
CV (83-01)		7.4%	2.4%	1.8%	3.7%	8.8%
Average (83-97)	422.9	600	633	664	675	640
Average (83-98)	404.7	600	633	664	677	640
Average (83-99)	388.8	601	633	664	677	640
Average (83-00)	381.9	601	634	665	677	640

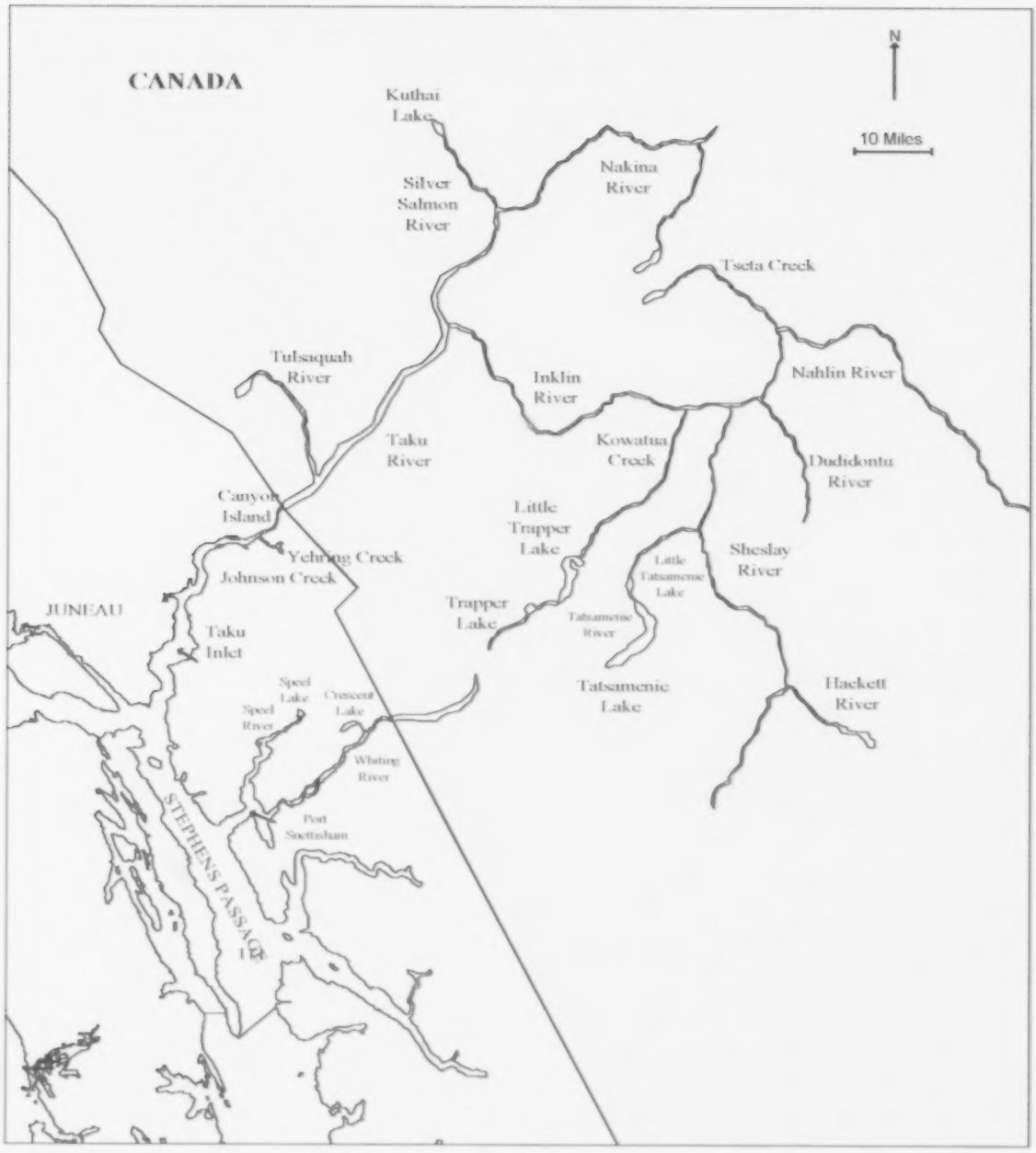


Figure 1. Taku River drainage, with location of tagging and recovery sites.

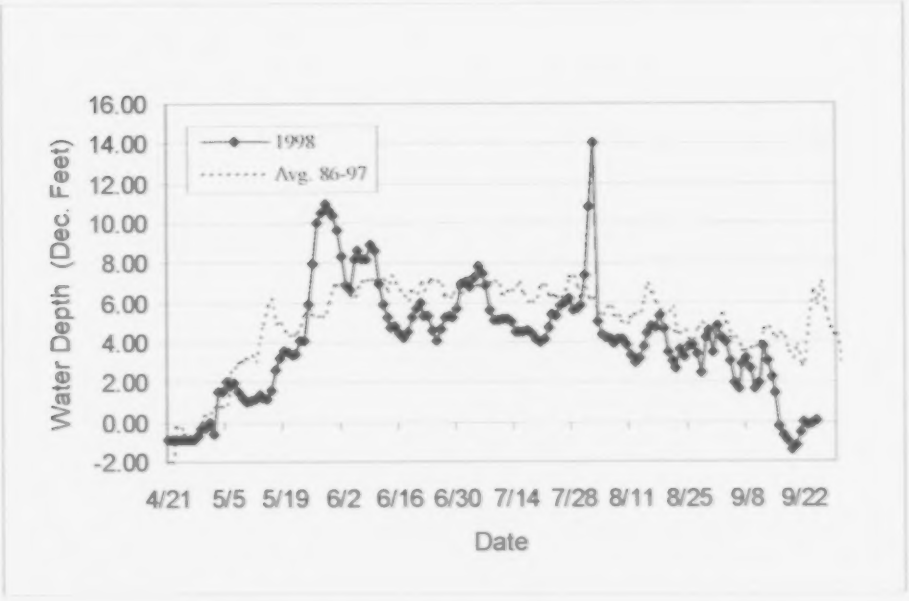


Figure 2a. Water levels at Canyon Island, 1998.

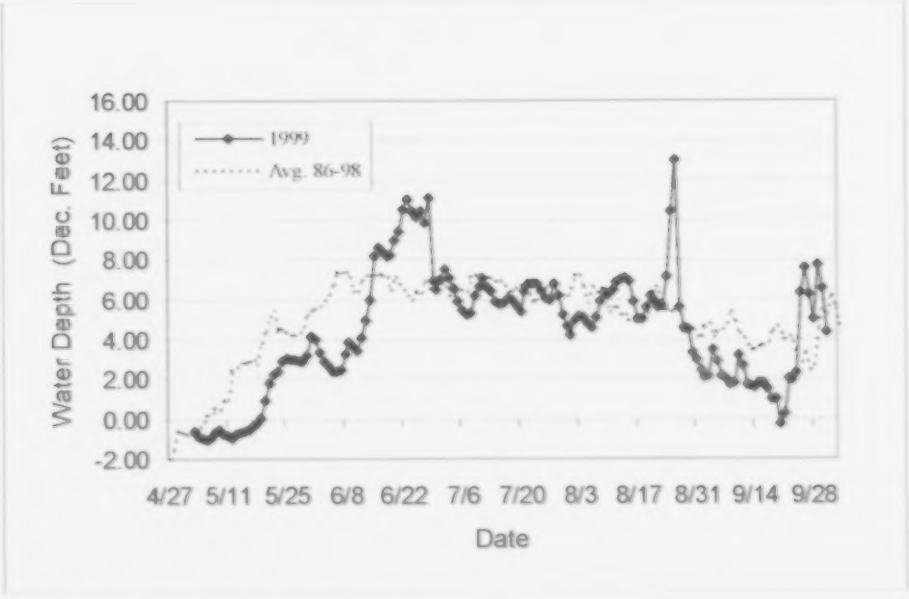


Figure 2b. Water levels at Canyon Island, 1999.

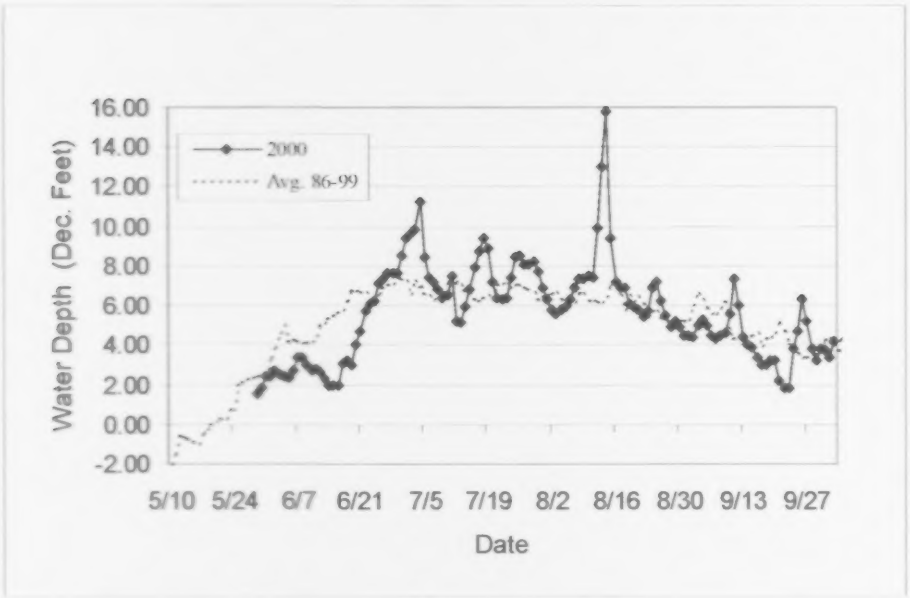


Figure 2c. Water levels at Canyon Island, 2000.

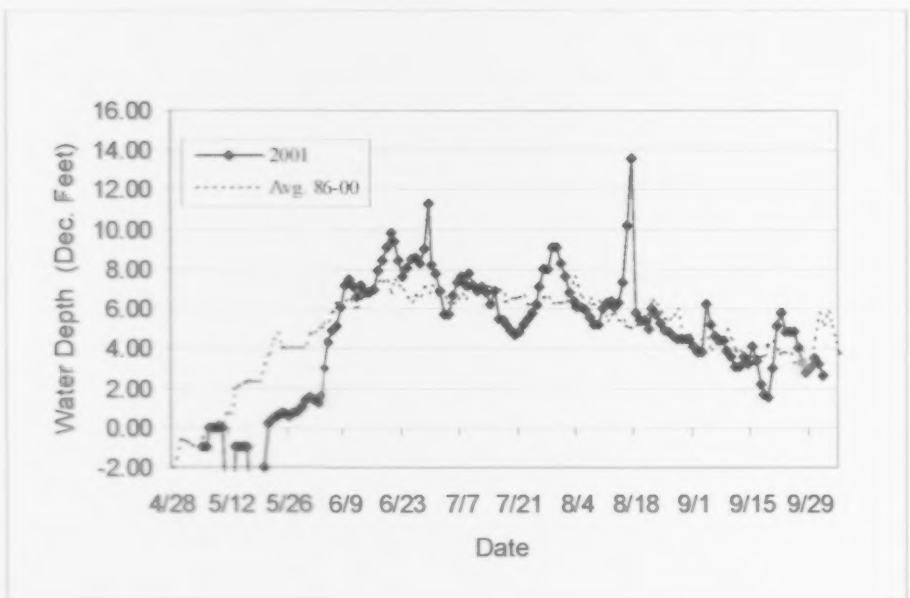


Figure 2d. Water levels at Canyon Island, 2001.

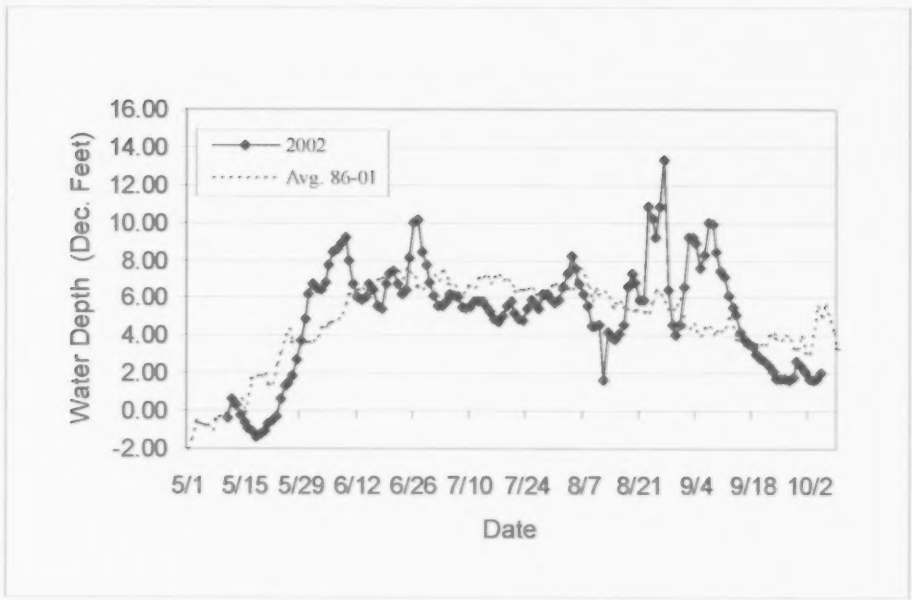
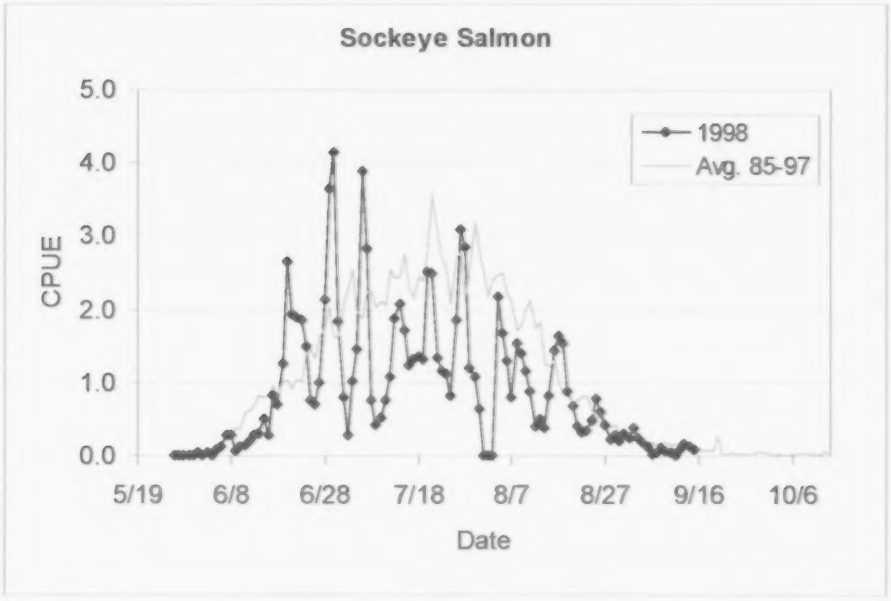


Figure 2e. Water levels at Canyon Island, 2002.



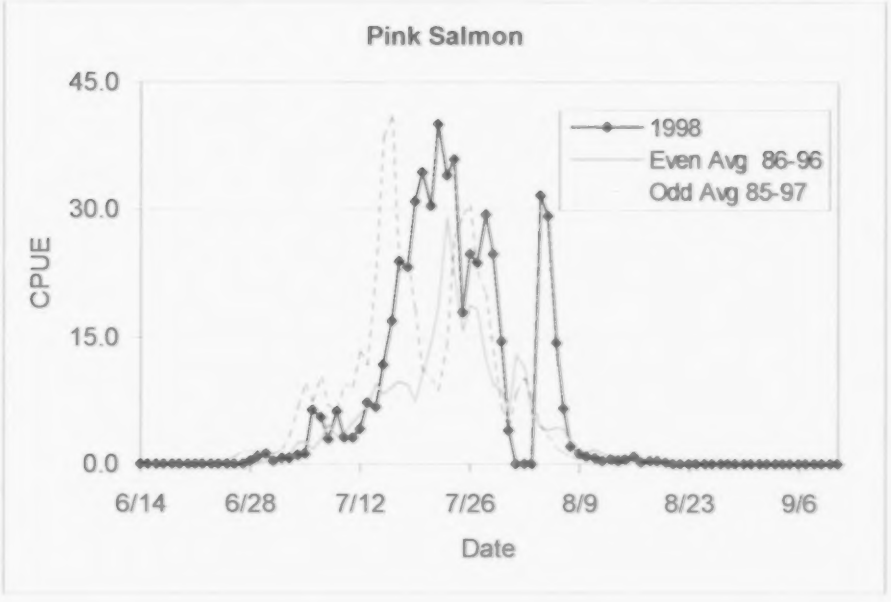


Figure 3a. Fish wheel CPUE for sockeye, pink, and chum salmon at Canyon Island, 1998.

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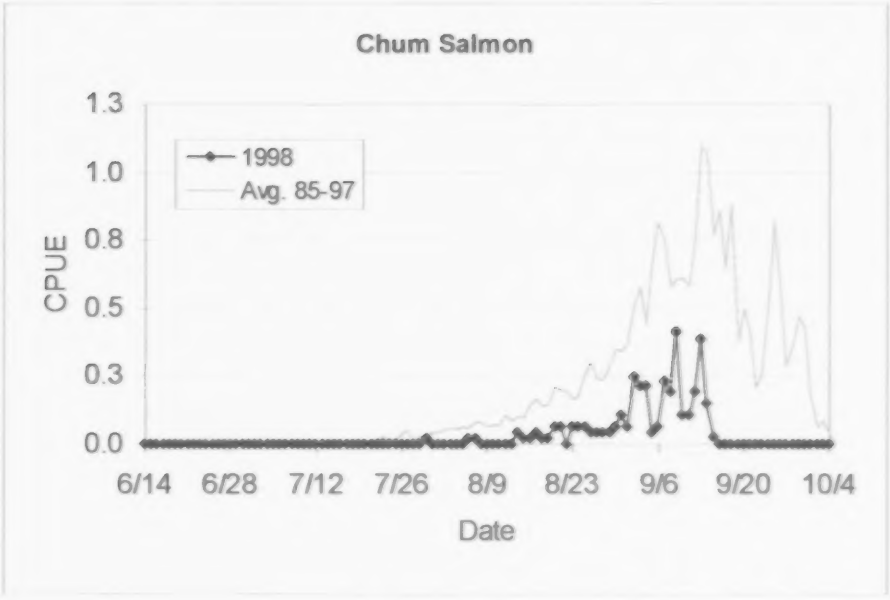
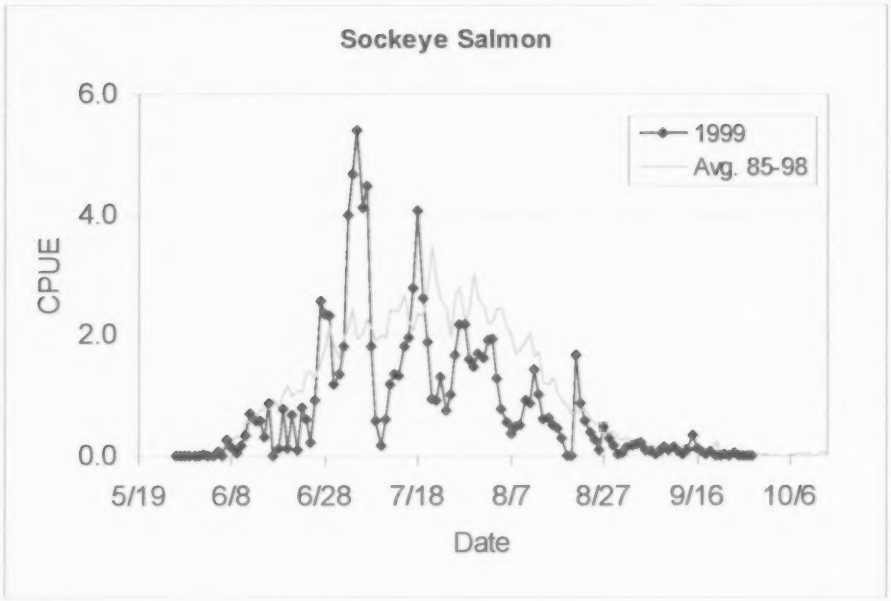


Figure 3a. Fish wheel CPUE for sockeye, pink, and chum salmon at Canyon Island, 1998.



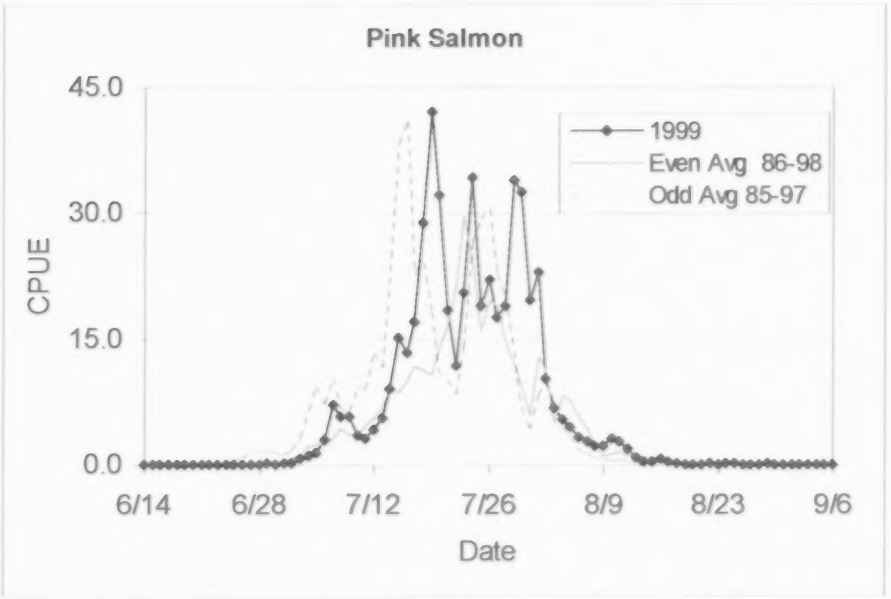


Figure 3b. Fish wheel CPUE for sockeye, pink, and chum salmon at Canyon Island, 1999.

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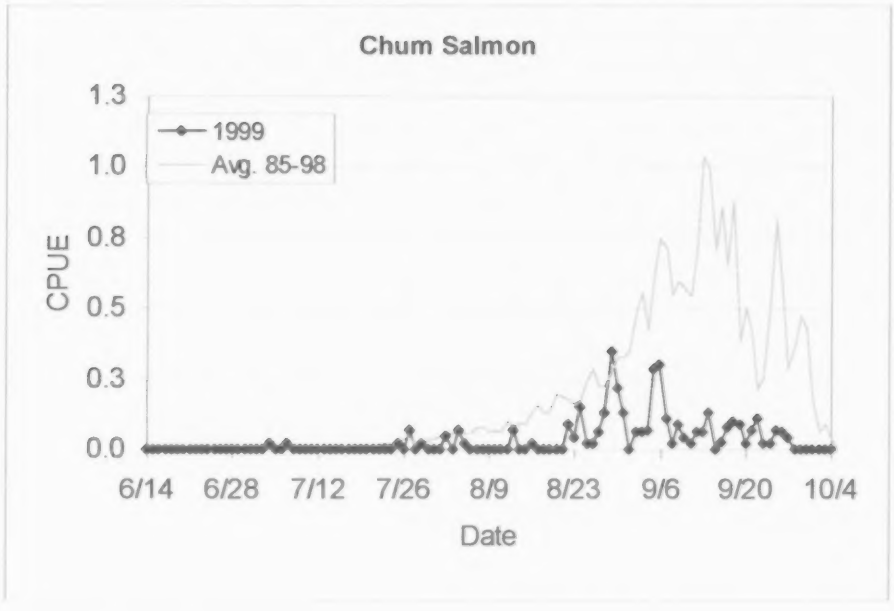
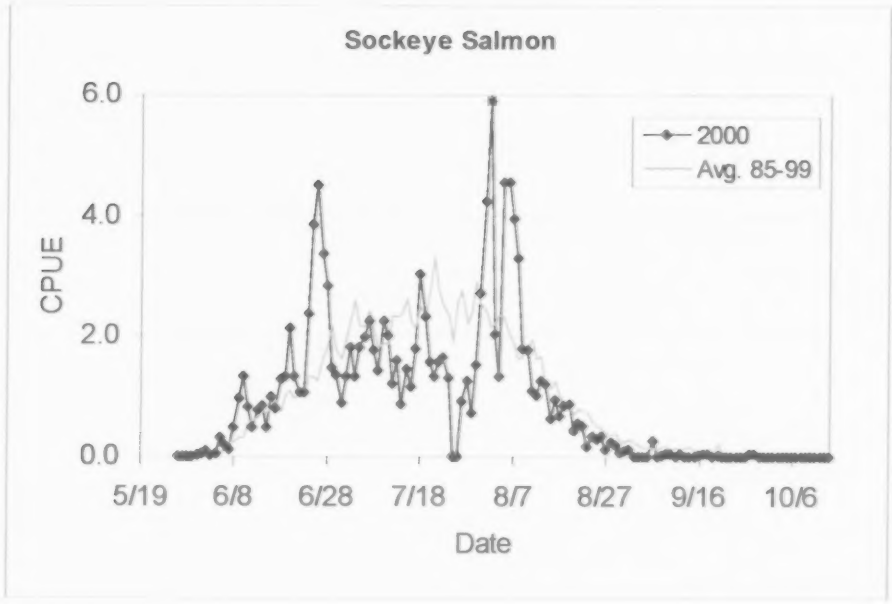


Figure 3b. Fish wheel CPUE for sockeye, pink, and chum salmon at Canyon Island, 1999.



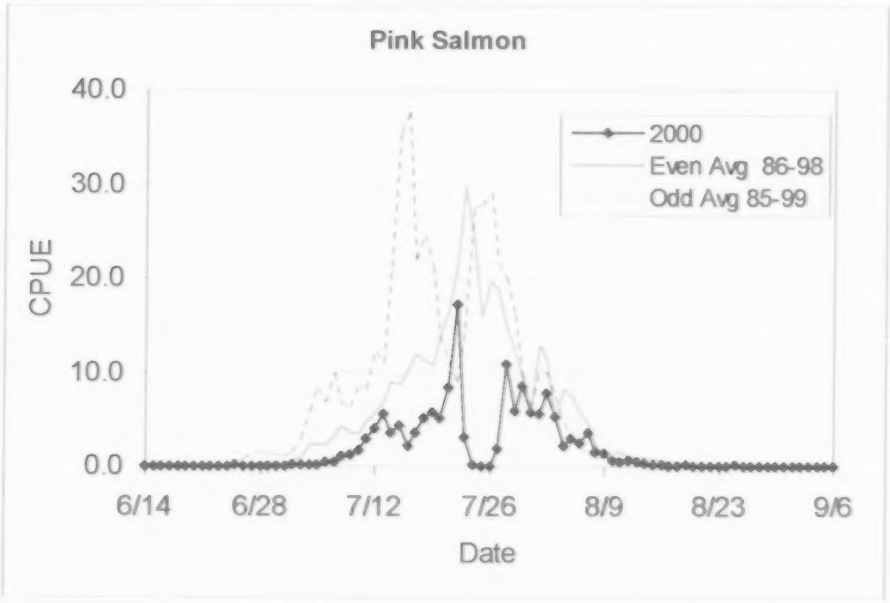


Figure 3c. Fish wheel CPUE for sockeye, pink, and chum salmon at Canyon Island, 2000.

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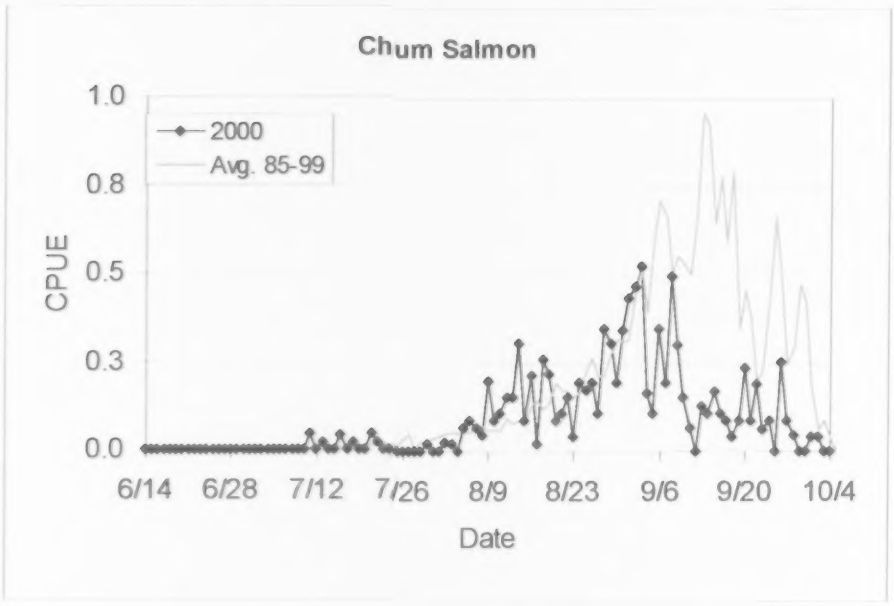
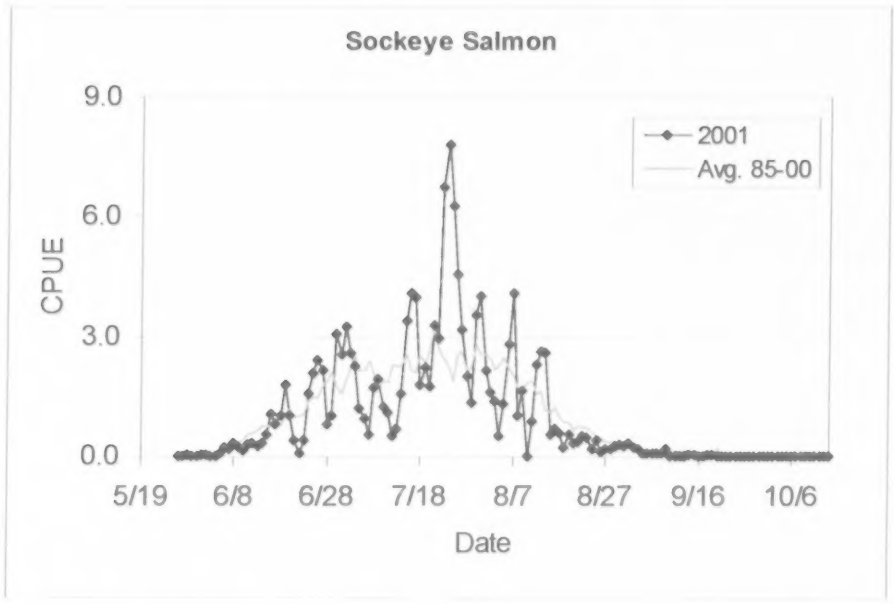


Figure 3c. Fish wheel CPUE for sockeye, pink, and chum salmon at Canyon Island, 2000.



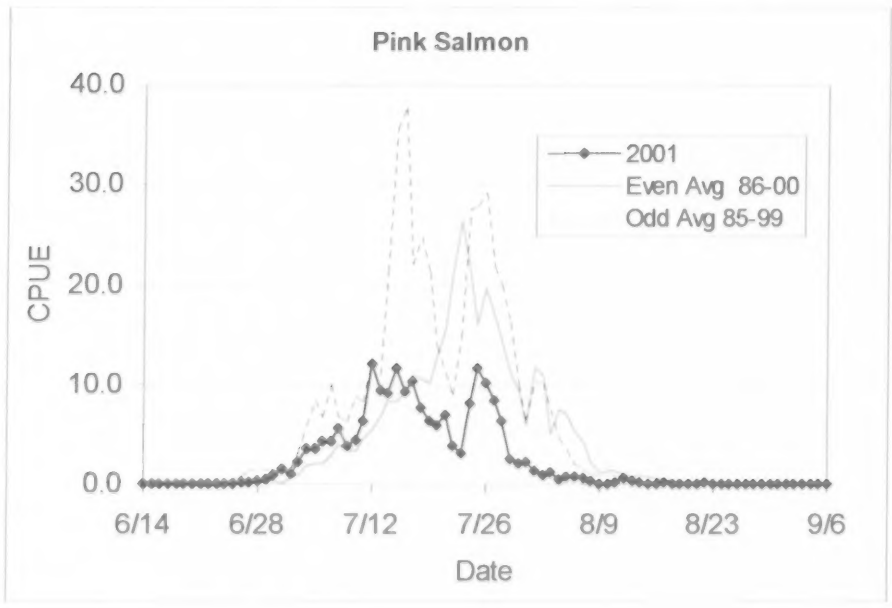


Figure 3d. Fish wheel CPUE for sockeye, pink, and chum salmon at Canyon Island, 2001.

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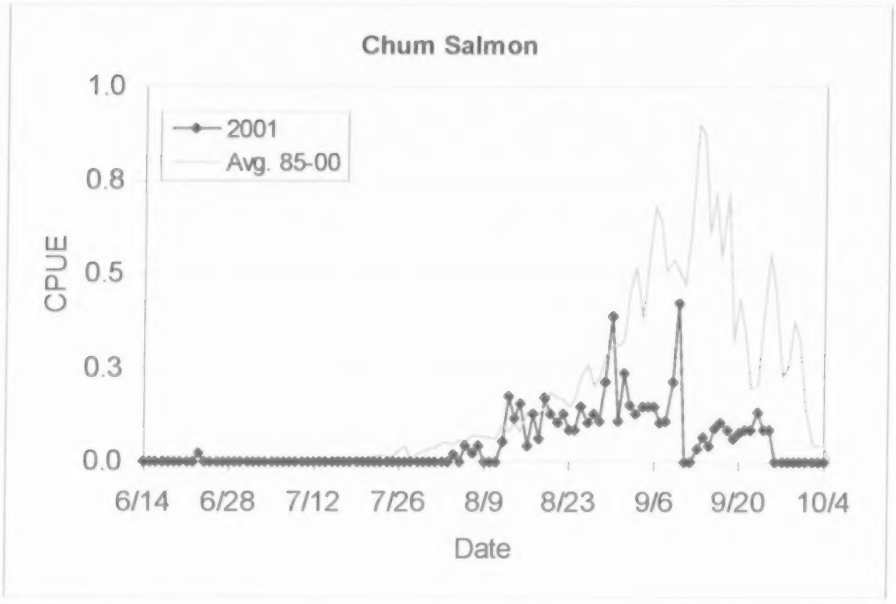
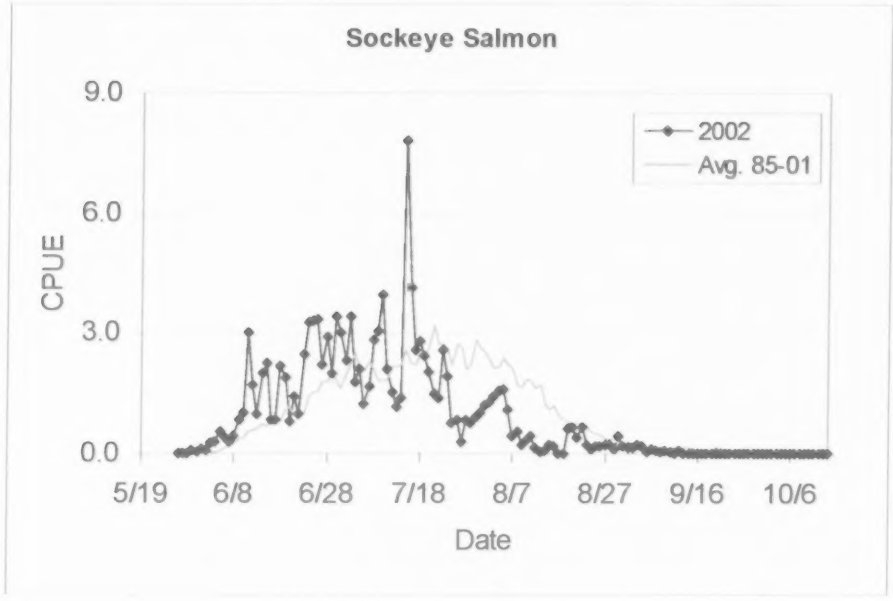


Figure 3d. Fish wheel CPUE for sockeye, pink, and chum salmon at Canyon Island, 2001.



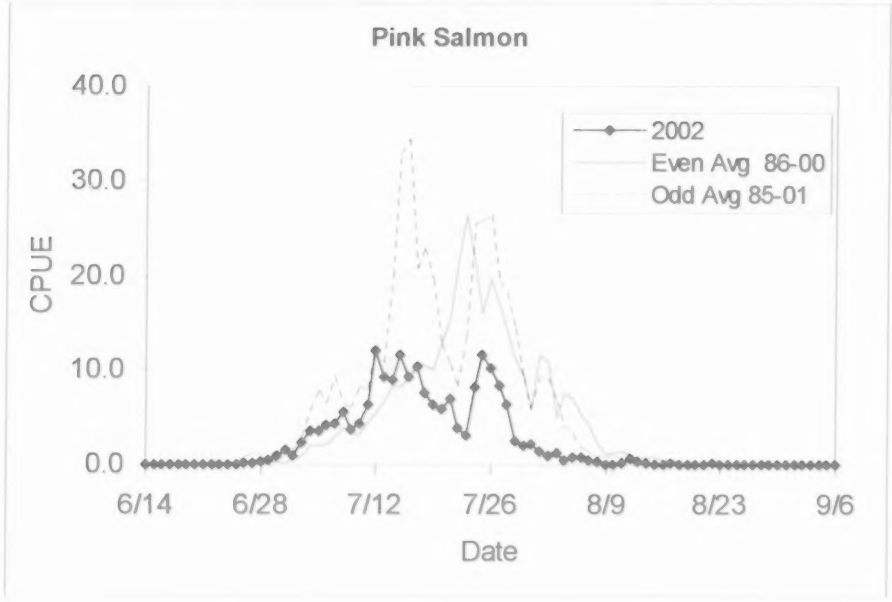


Figure 3e. Fish wheel CPUE for sockeye, pink, and chum salmon at Canyon Island, 2002.

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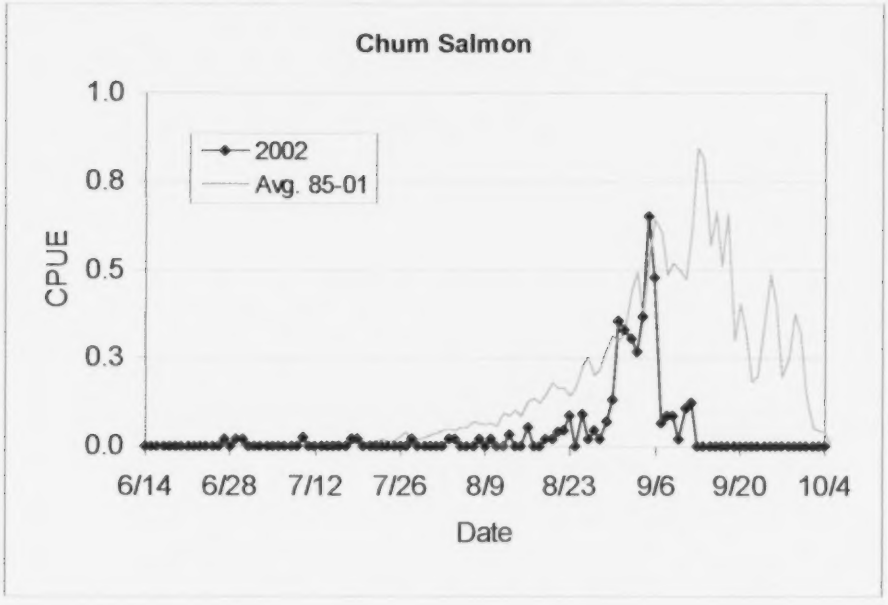


Figure 3e. Fish wheel CPUE for sockeye, pink, and chum salmon at Canyon Island, 2002.

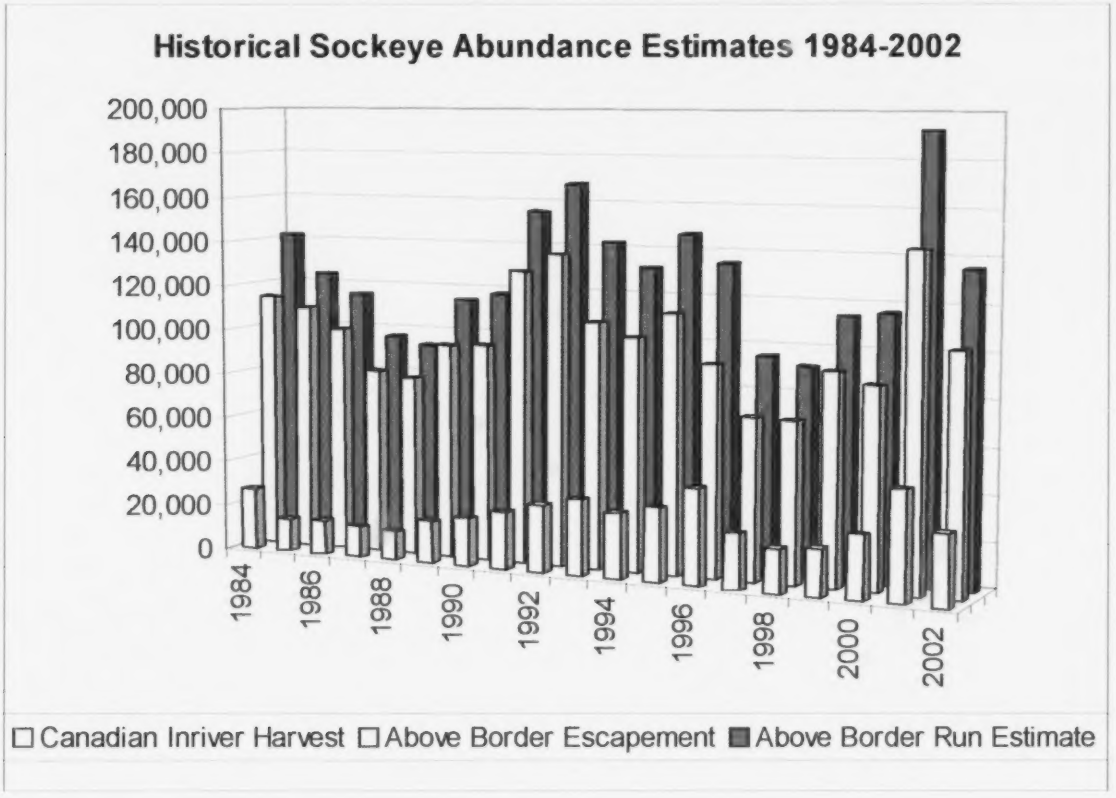


Figure 4. Historical sockeye mark-recapture abundance estimates above the U.S./Canada border including Canadian inriver harvests and escapements for Taku River sockeye, 1984-2002.

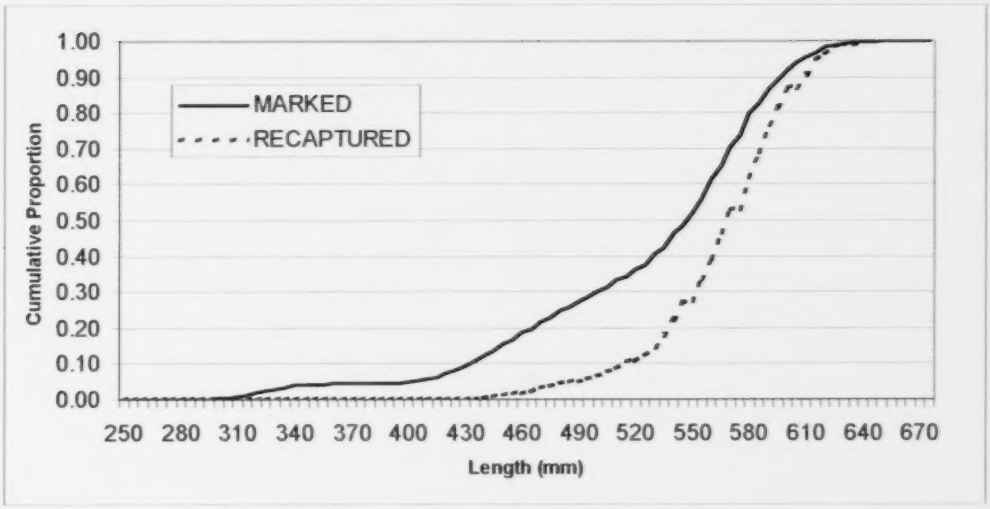


Figure 5a. Cumulative Distribution Functions (CDF) of MEF lengths of sockeye salmon tagged at Canyon Island and of tagged sockeye salmon recovered in the Canadian commercial fishery, 1998.

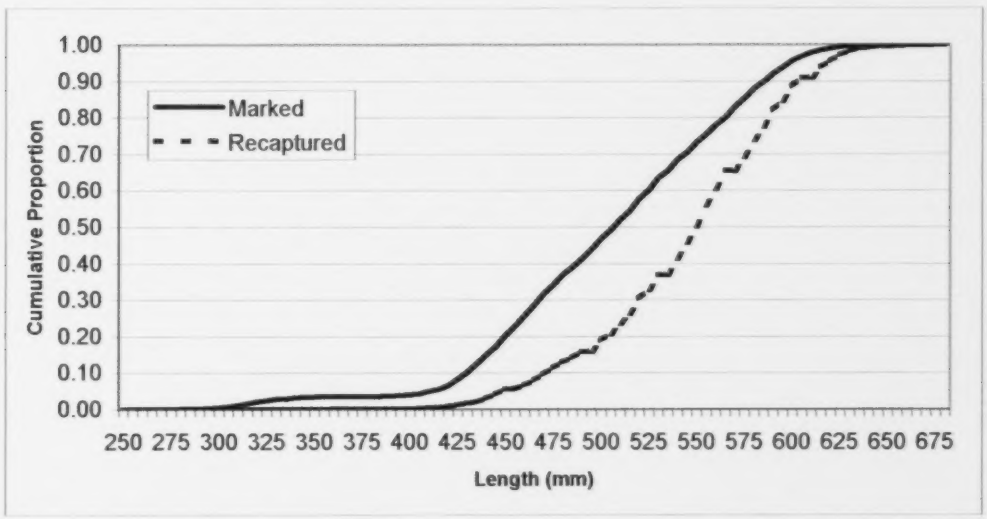


Figure 5b. Cumulative Distribution Functions (CDF) of MEF lengths of sockeye salmon tagged at Canyon Island and of tagged sockeye salmon recovered in the Canadian commercial fishery, 1999.

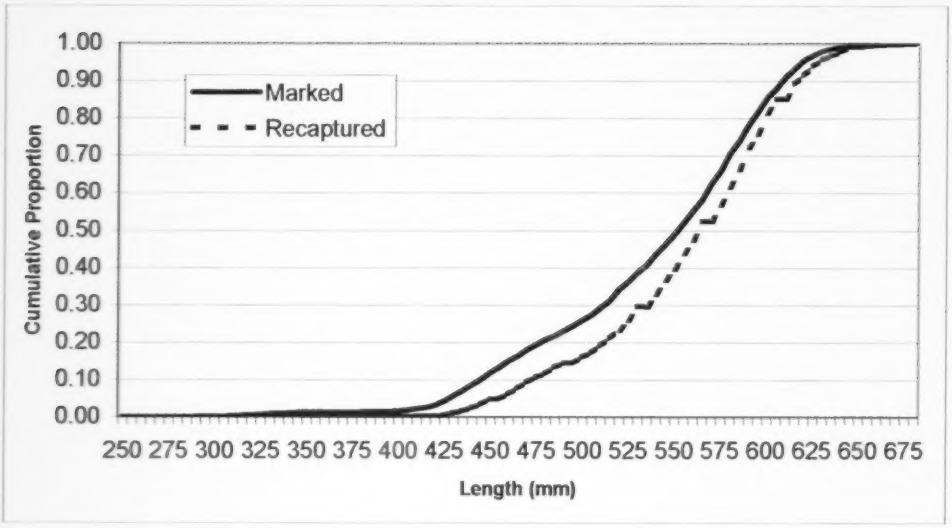


Figure 5c. Cumulative Distribution Functions (CDF) of MEF lengths of sockeye salmon tagged at Canyon Island and of tagged sockeye salmon recovered in the Canadian commercial fishery, 2000.

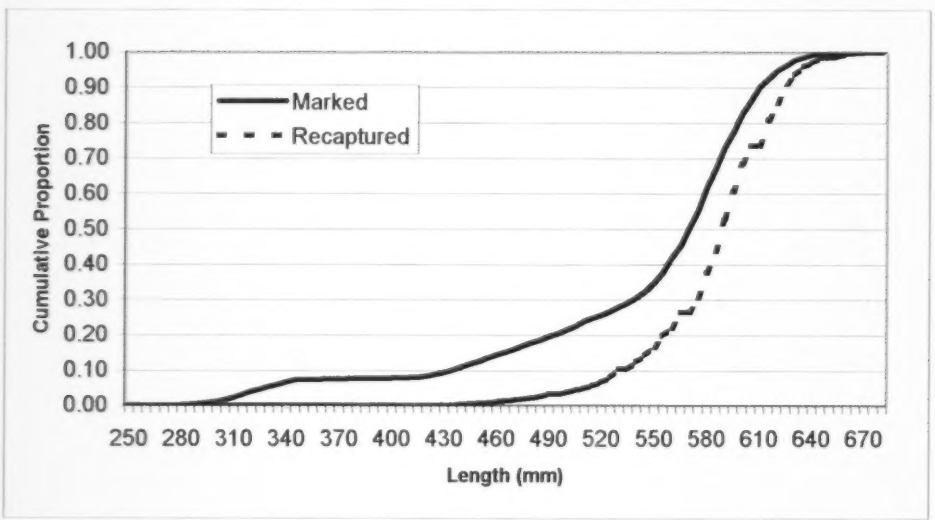


Figure 5d. Cumulative Distribution Functions (CDF) of MEF lengths of sockeye salmon tagged at Canyon Island and of tagged sockeye salmon recovered in the Canadian commercial fishery, 2001.

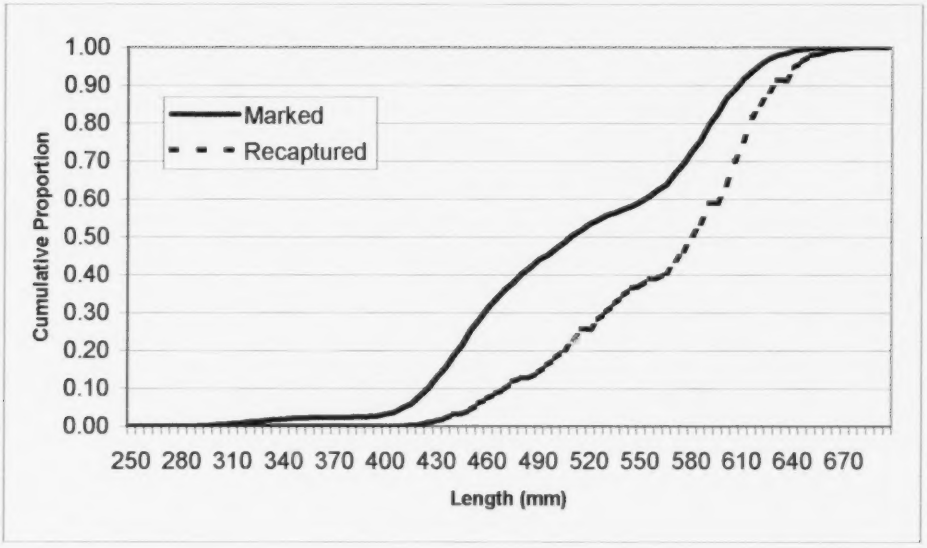


Figure 5c. Cumulative Distribution Functions (CDF) of MEF lengths of sockeye salmon tagged at Canyon Island and of tagged sockeye salmon recovered in the Canadian commercial fishery, 2002.

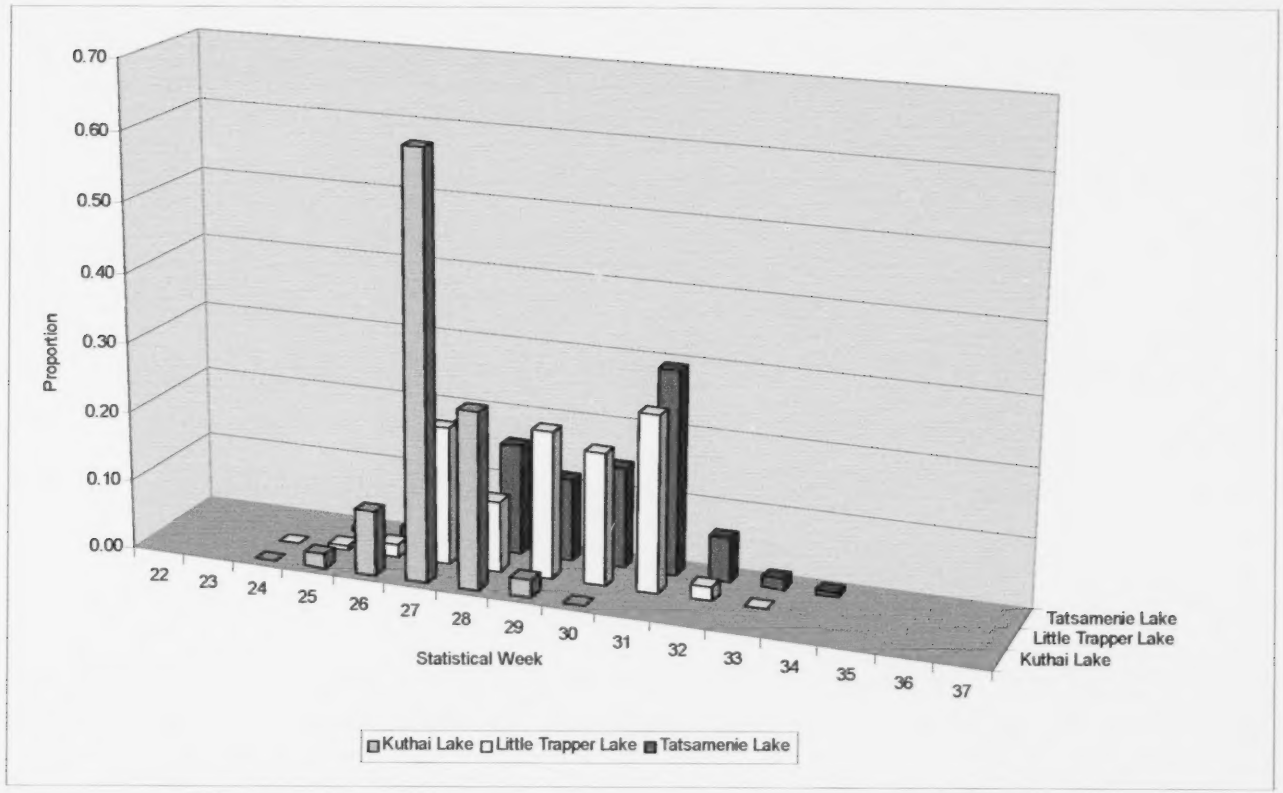


Figure 6a. Run timing of three sockeye salmon stock groups passing Canyon Island, 1998

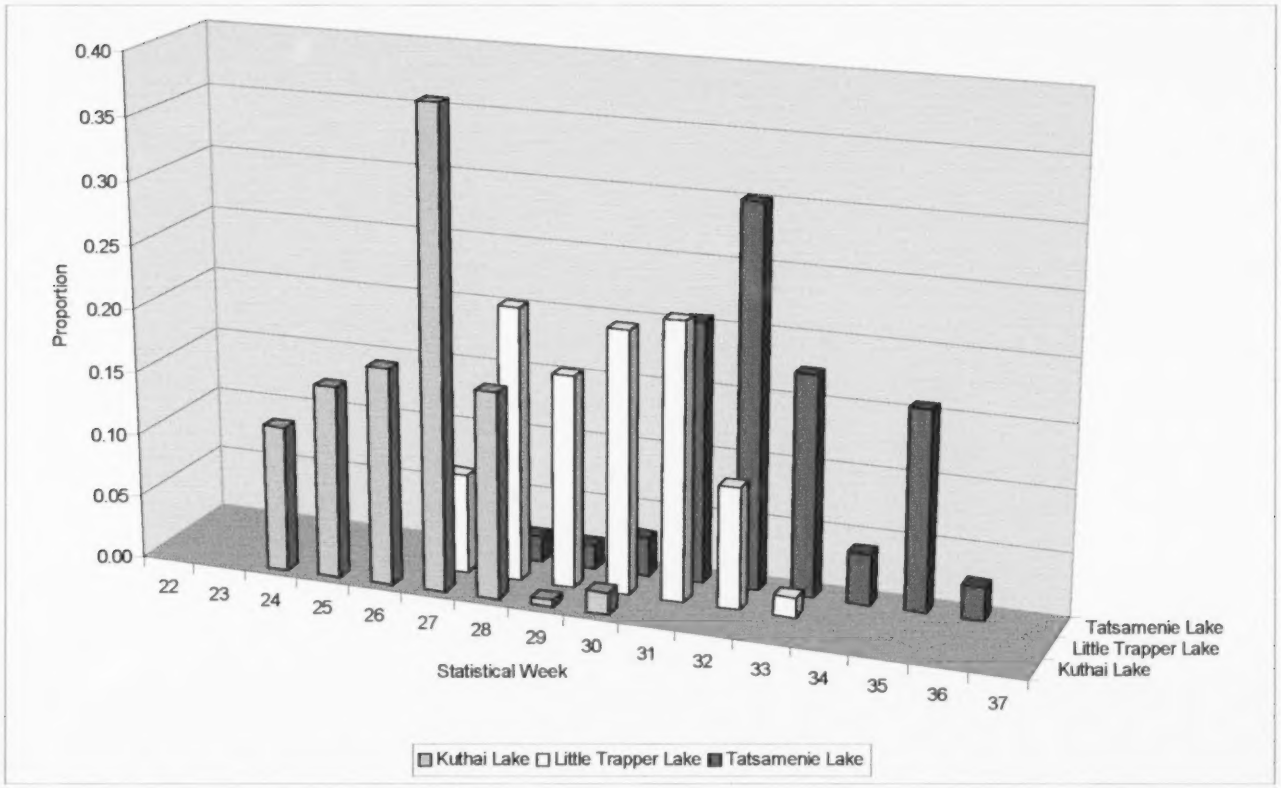


Figure 6b. Run timing of three sockeye salmon stock groups passing Canyon Island, 1999

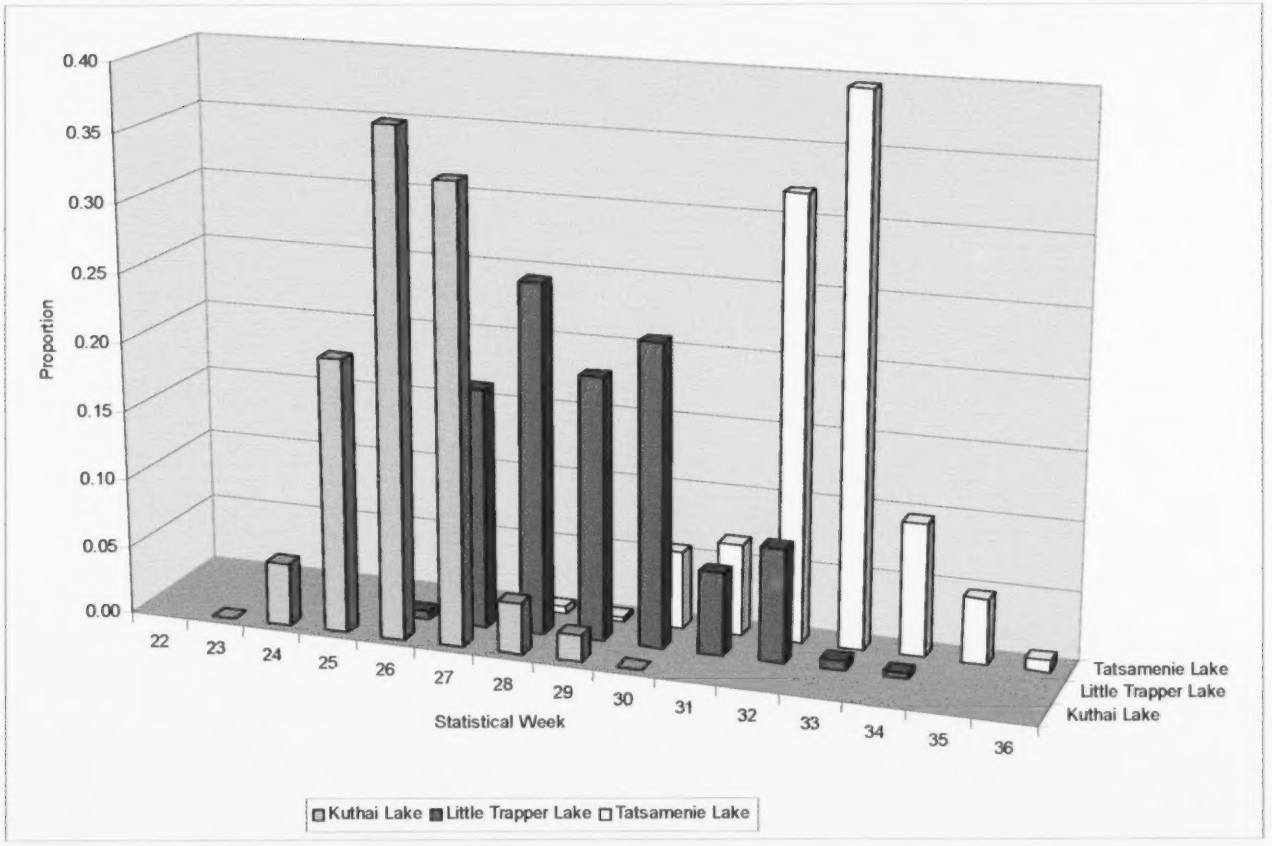


Figure 6c. Run timing of three sockeye salmon stock groups passing Canyon Island, 2000

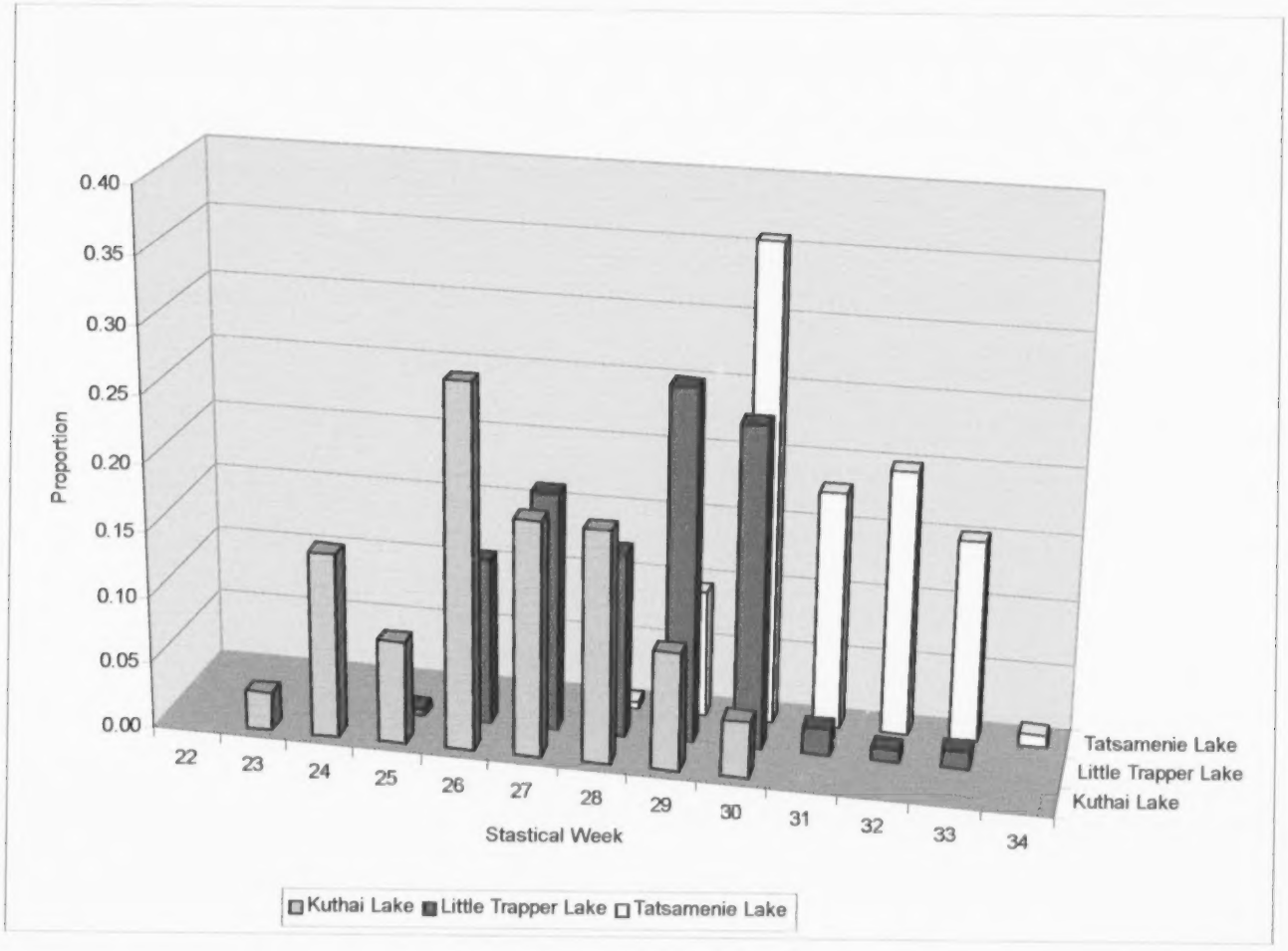


Figure 6d. Run timing of three sockeye salmon stock groups passing Canyon Island, 2001

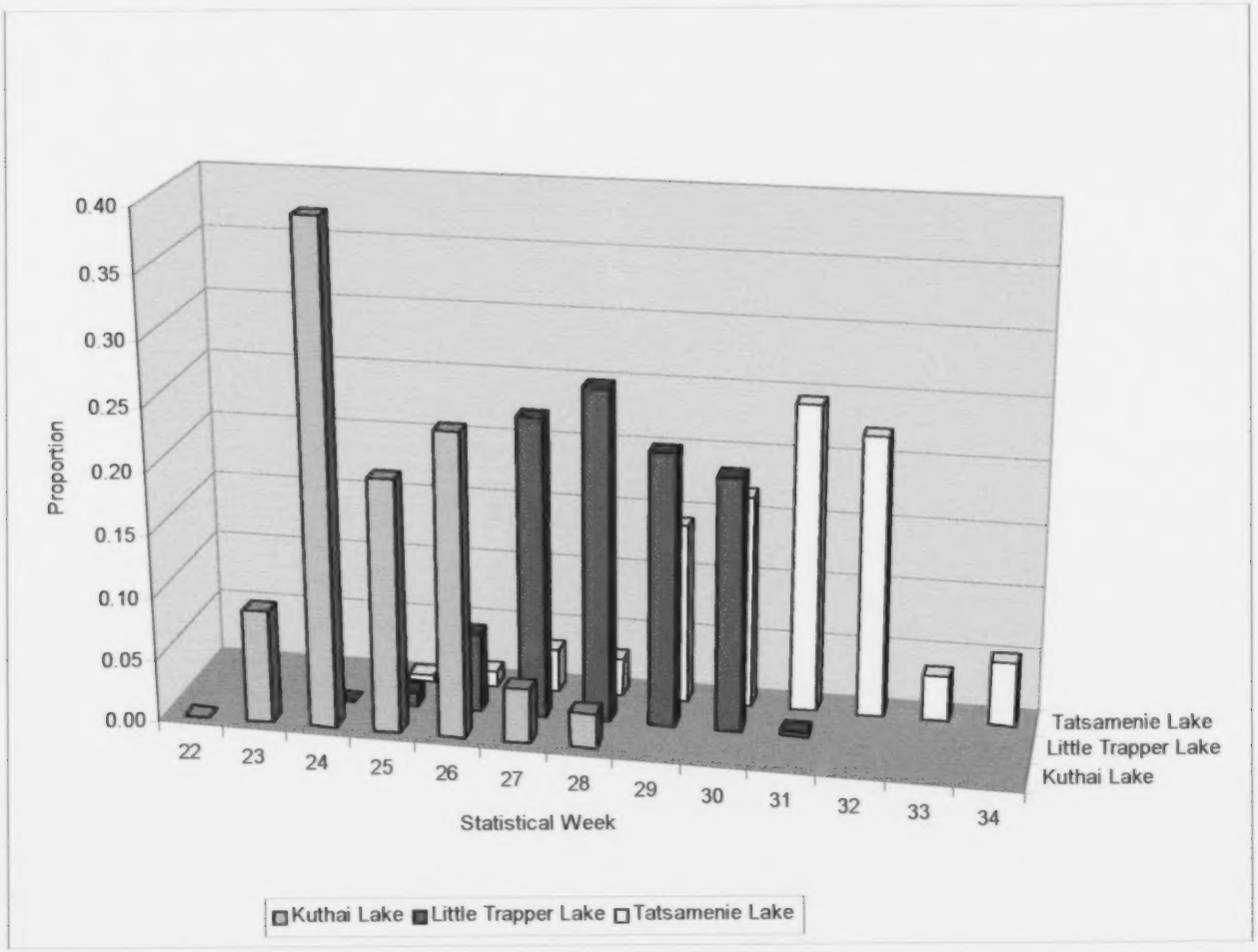
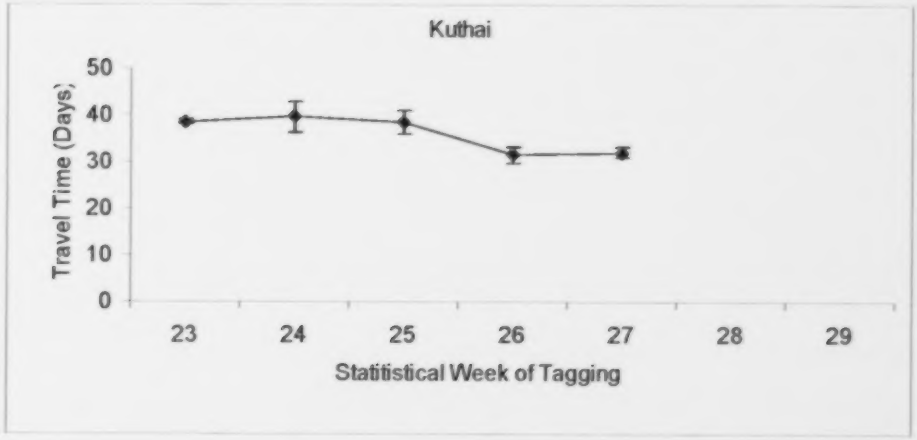
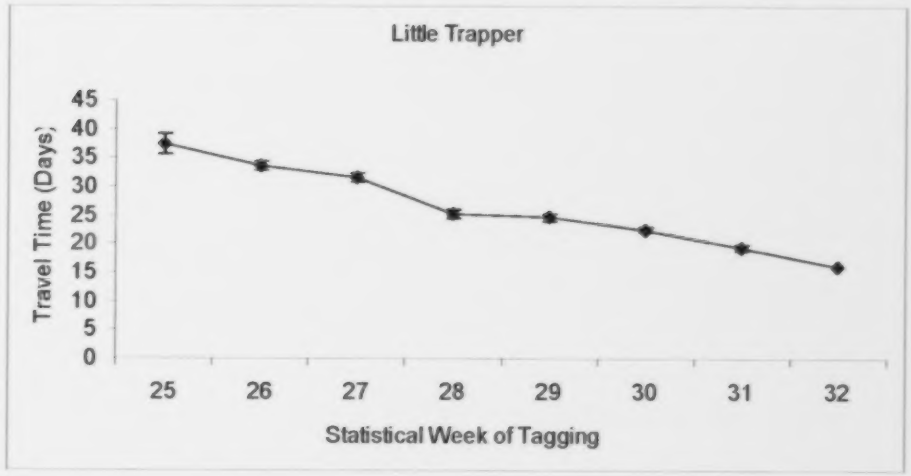


Figure 6c. Run timing of three sockeye salmon stock groups passing Canyon Island, 2002





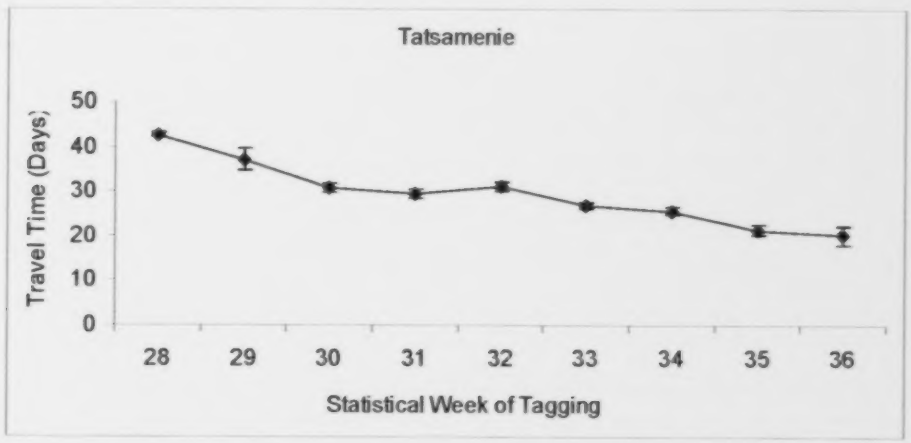
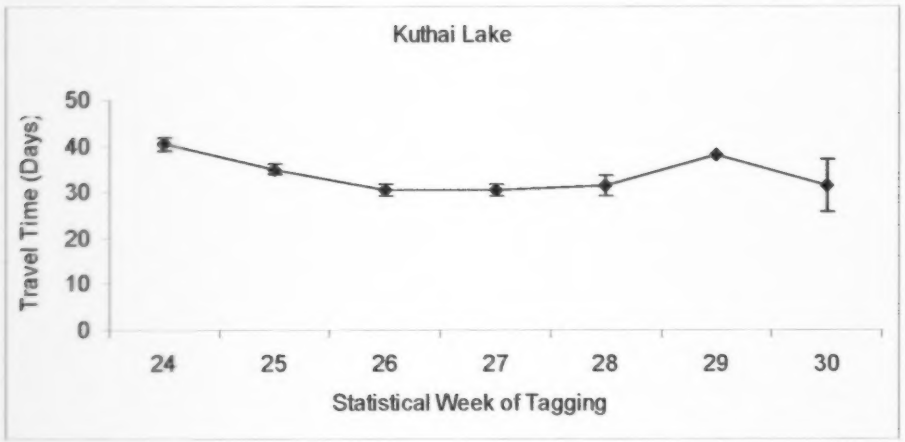
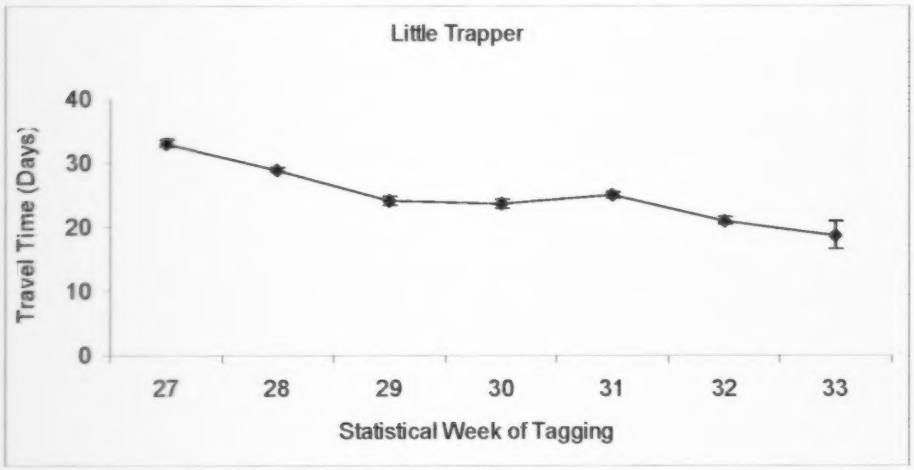


Figure 7a. Mean travel times (and 95% confidence intervals) of spaghetti-tagged sockeye salmon between Canyon Island and three upriver locations, 1998.





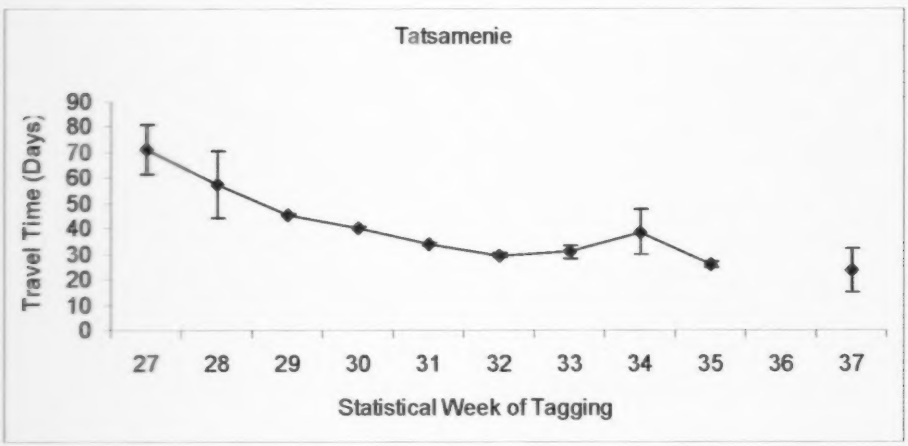
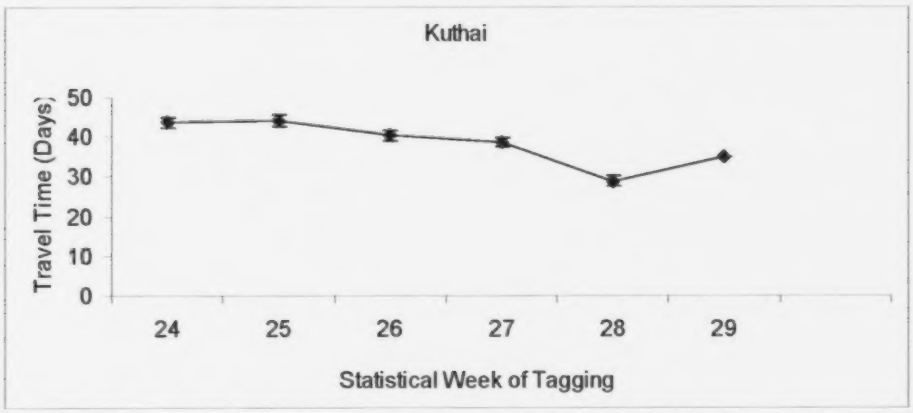
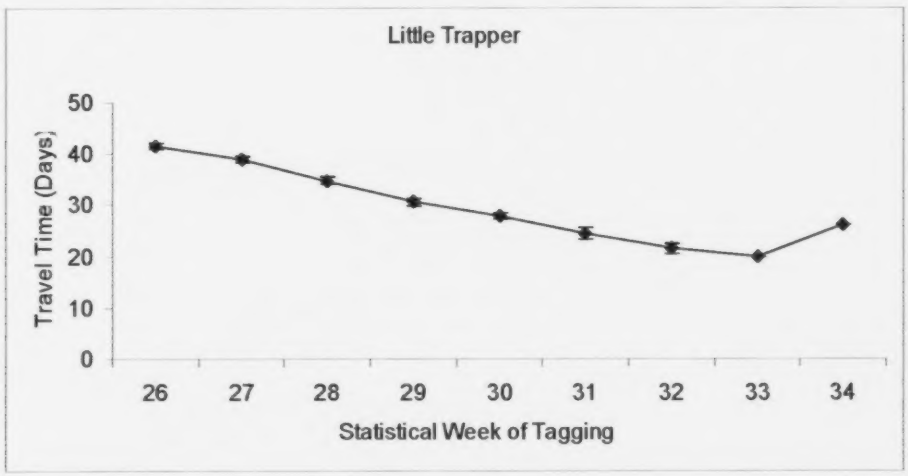


Figure 7b. Mean travel times (and 95% confidence intervals) of spaghetti-tagged sockeye salmon between Canyon Island and three upriver locations, 1999.





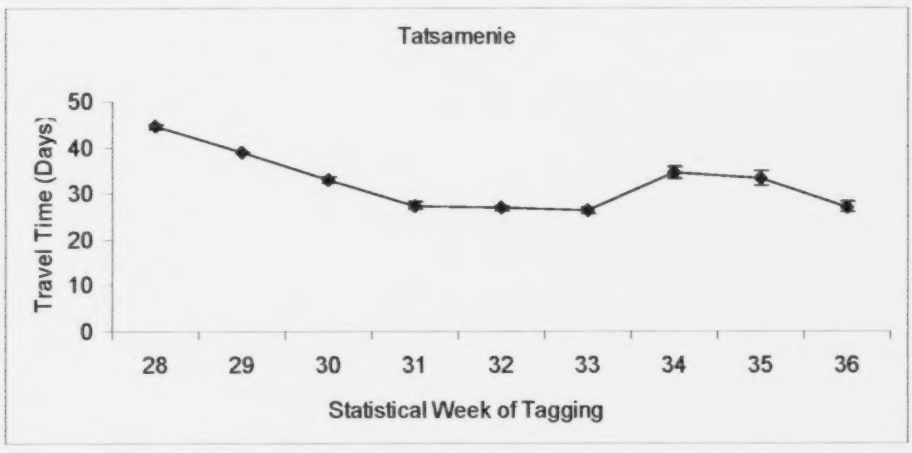


Figure 7c. Mean travel times (and 95% confidence intervals) of spaghetti-tagged sockeye salmon between Canyon Island and three upriver locations, 2000.

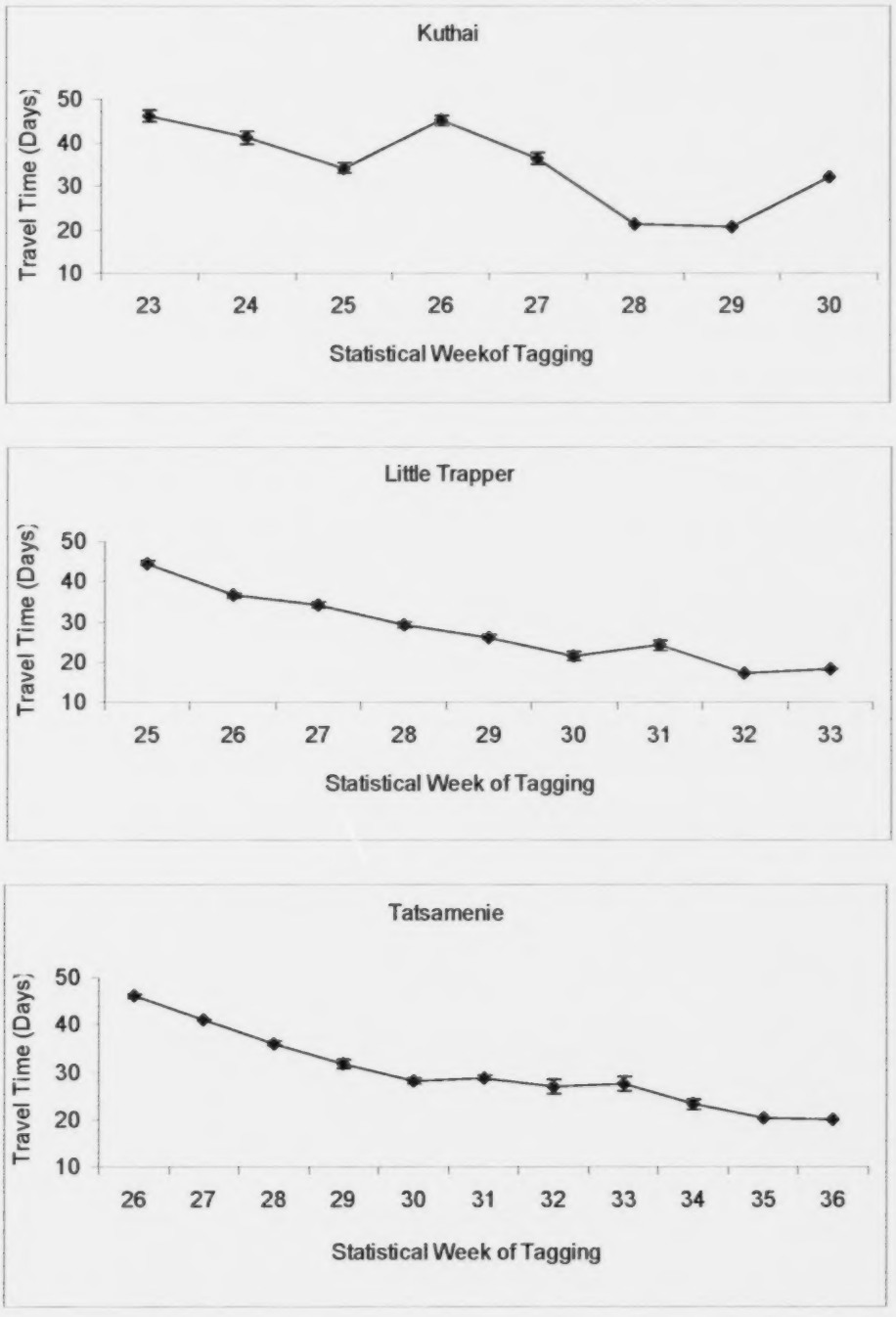


Figure 7d. Mean travel times (and 95% confidence intervals) of spaghetti-tagged sockeye salmon between Canyon Island and three upriver locations, 2001.

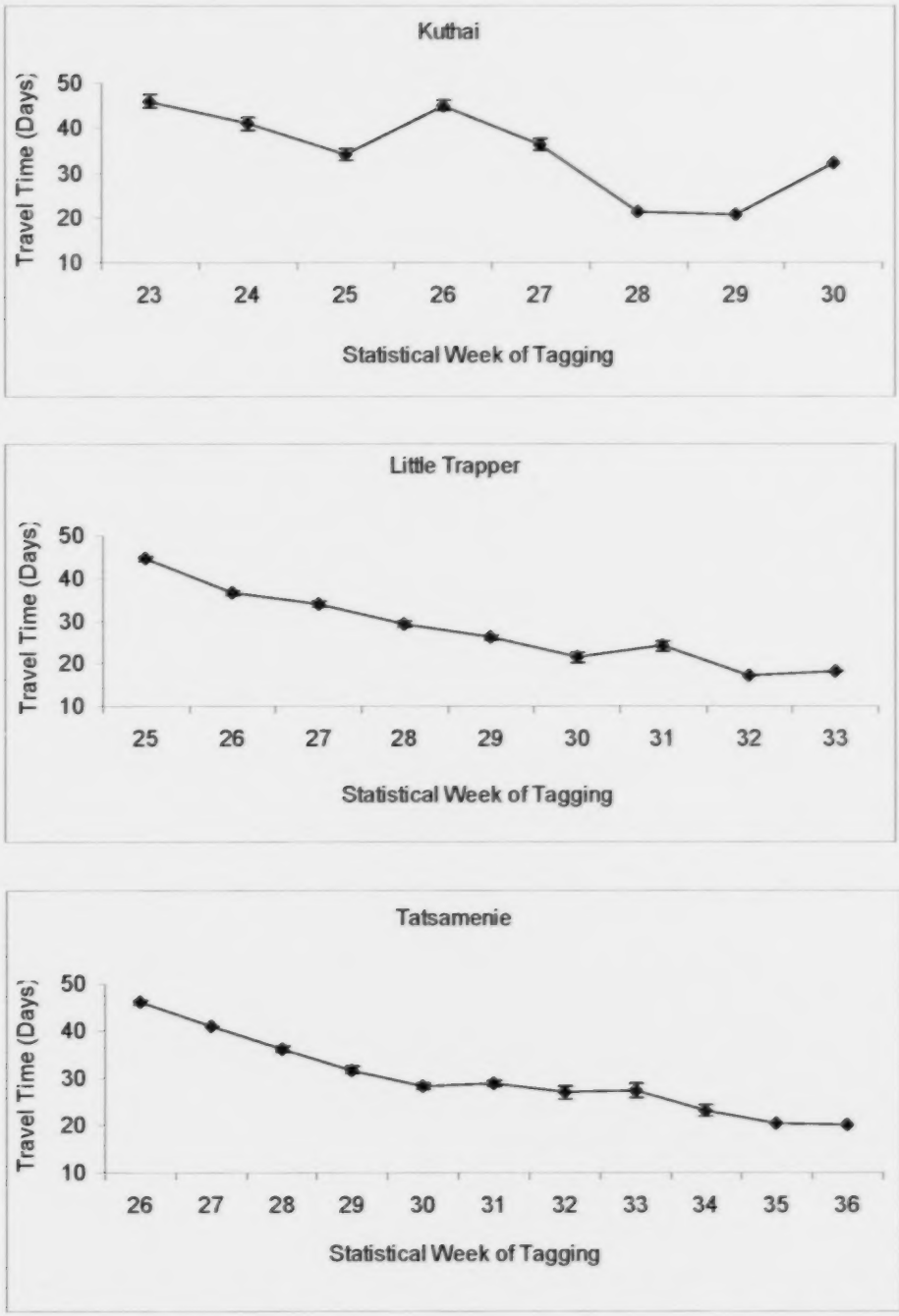


Figure 7e. Mean travel times (and 95% confidence intervals) of spaghetti-tagged sockeye salmon between Canyon Island and three upriver locations, 2002.

Appendix A.1. Inclusive dates for statistical weeks, 1998.

1998 Stat Week Calendar					
WEEK	FROM	THRU	WEEK	FROM	THRU
1	1-Jan	3-Jan	28	5-Jul	11-Jul
2	4-Jan	10-Jan	29	12-Jul	18-Jul
3	11-Jan	17-Jan	30	19-Jul	25-Jul
4	18-Jan	24-Jan	31	26-Jul	1-Aug
5	25-Jan	31-Jan	32	2-Aug	8-Aug
6	1-Feb	7-Feb	33	9-Aug	15-Aug
7	8-Feb	14-Feb	34	16-Aug	22-Aug
8	15-Feb	21-Feb	35	23-Aug	29-Aug
9	22-Feb	28-Feb	36	30-Aug	5-Sep
10	1-Mar	7-Mar	37	6-Sep	12-Sep
11	8-Mar	14-Mar	38	13-Sep	19-Sep
12	15-Mar	21-Mar	39	20-Sep	26-Sep
13	22-Mar	28-Mar	40	27-Sep	3-Oct
14	29-Mar	4-Apr	41	4-Oct	10-Oct
15	5-Apr	11-Apr	42	11-Oct	17-Oct
16	12-Apr	18-Apr	43	18-Oct	24-Oct
17	19-Apr	25-Apr	44	25-Oct	31-Oct
18	26-Apr	2-May	45	1-Nov	7-Nov
19	3-May	9-May	46	8-Nov	14-Nov
20	10-May	16-May	47	15-Nov	21-Nov
21	17-May	23-May	48	22-Nov	28-Nov
22	24-May	30-May	49	29-Nov	5-Dec
23	31-May	6-Jun	50	6-Dec	12-Dec
24	7-Jun	13-Jun	51	13-Dec	19-Dec
25	14-Jun	20-Jun	52	20-Dec	26-Dec
26	21-Jun	27-Jun	53	27-Dec	31-Dec
27	28-Jun	4-Jul			

Appendix A.2. Inclusive dates for statistical weeks, 1999.

1999 Stat Week Calendar					
WEEK	FROM	THRU	WEEK	FROM	THRU
1	1-Jan	2-Jan	28	4-Jul	10-Jul
2	3-Jan	9-Jan	29	11-Jul	17-Jul
3	10-Jan	16-Jan	30	18-Jul	24-Jul
4	17-Jan	23-Jan	31	25-Jul	31-Jul
5	24-Jan	30-Jan	32	1-Aug	7-Aug
6	31-Jan	6-Feb	33	8-Aug	14-Aug
7	7-Feb	13-Feb	34	15-Aug	21-Aug
8	14-Feb	20-Feb	35	22-Aug	28-Aug
9	21-Feb	27-Feb	36	29-Aug	4-Sep
10	28-Feb	6-Mar	37	5-Sep	11-Sep
11	7-Mar	13-Mar	38	12-Sep	18-Sep
12	14-Mar	20-Mar	39	19-Sep	25-Sep
13	21-Mar	27-Mar	40	26-Sep	2-Oct
14	28-Mar	3-Apr	41	3-Oct	9-Oct
15	4-Apr	10-Apr	42	10-Oct	16-Oct
16	11-Apr	17-Apr	43	17-Oct	23-Oct
17	18-Apr	24-Apr	44	24-Oct	30-Oct
18	25-Apr	1-May	45	31-Oct	6-Nov
19	2-May	8-May	46	7-Nov	13-Nov
20	9-May	15-May	47	14-Nov	20-Nov
21	16-May	22-May	48	21-Nov	27-Nov
22	23-May	29-May	49	28-Nov	4-Dec
23	30-May	5-Jun	50	5-Dec	11-Dec
24	6-Jun	12-Jun	51	12-Dec	18-Dec
25	13-Jun	19-Jun	52	19-Dec	25-Dec
26	20-Jun	26-Jun	53	26-Dec	31-Dec
27	27-Jun	3-Jul			

Appendix A.3. Inclusive dates for statistical weeks, 2000.

2000 Stat Week Calendar					
WEEK	FROM	THRU	WEEK	FROM	THRU
1		1-Jan	28	2-Jul	8-Jul
2	2-Jan	8-Jan	29	9-Jul	15-Jul
3	9-Jan	15-Jan	30	16-Jul	22-Jul
4	16-Jan	22-Jan	31	23-Jul	29-Jul
5	23-Jan	29-Jan	32	30-Jul	5-Aug
6	30-Jan	5-Feb	33	6-Aug	12-Aug
7	6-Feb	12-Feb	34	13-Aug	19-Aug
8	13-Feb	19-Feb	35	20-Aug	26-Aug
9	20-Feb	26-Feb	36	27-Aug	2-Sep
10	27-Feb	4-Mar	37	3-Sep	9-Sep
11	5-Mar	11-Mar	38	10-Sep	16-Sep
12	12-Mar	18-Mar	39	17-Sep	23-Sep
13	19-Mar	25-Mar	40	24-Sep	30-Sep
14	26-Mar	1-Apr	41	1-Oct	7-Oct
15	2-Apr	8-Apr	42	8-Oct	14-Oct
16	9-Apr	15-Apr	43	15-Oct	21-Oct
17	16-Apr	22-Apr	44	22-Oct	28-Oct
18	23-Apr	29-Apr	45	29-Oct	4-Nov
19	30-Apr	6-May	46	5-Nov	11-Nov
20	7-May	13-May	47	12-Nov	18-Nov
21	14-May	20-May	48	19-Nov	25-Nov
22	21-May	27-May	49	26-Nov	2-Dec
23	28-May	3-Jun	50	3-Dec	9-Dec
24	4-Jun	10-Jun	51	10-Dec	16-Dec
25	11-Jun	17-Jun	52	17-Dec	23-Dec
26	18-Jun	24-Jun	53	24-Dec	30-Dec
27	25-Jun	1-Jul	54	31-Dec	

Appendix A.4. Inclusive dates for statistical weeks, 2001.

2001 Stat Week Calendar					
WEEK	FROM	THRU	WEEK	FROM	THRU
1	1-Jan	6-Jan	28	8-Jul	14-Jul
2	7-Jan	13-Jan	29	15-Jul	21-Jul
3	14-Jan	20-Jan	30	22-Jul	28-Jul
4	21-Jan	27-Jan	31	29-Jul	4-Aug
5	28-Jan	3-Feb	32	5-Aug	11-Aug
6	4-Feb	10-Feb	33	12-Aug	18-Aug
7	11-Feb	17-Feb	34	19-Aug	25-Aug
8	18-Feb	24-Feb	35	26-Aug	1-Sep
9	25-Feb	3-Mar	36	2-Sep	8-Sep
10	4-Mar	10-Mar	37	9-Sep	15-Sep
11	11-Mar	17-Mar	38	16-Sep	22-Sep
12	18-Mar	24-Mar	39	23-Sep	29-Sep
13	25-Mar	31-Mar	40	30-Sep	6-Oct
14	1-Apr	7-Apr	41	7-Oct	13-Oct
15	8-Apr	14-Apr	42	14-Oct	20-Oct
16	15-Apr	21-Apr	43	21-Oct	27-Oct
17	22-Apr	28-Apr	44	28-Oct	3-Nov
18	29-Apr	5-May	45	4-Nov	10-Nov
19	6-May	12-May	46	11-Nov	17-Nov
20	13-May	19-May	47	18-Nov	24-Nov
21	20-May	26-May	48	25-Nov	1-Dec
22	27-May	2-Jun	49	2-Dec	8-Dec
23	3-Jun	9-Jun	50	9-Dec	15-Dec
24	10-Jun	16-Jun	51	16-Dec	22-Dec
25	17-Jun	23-Jun	52	23-Dec	29-Dec
26	24-Jun	30-Jun	53	30-Dec	31-Dec
27	1-Jul	7-Jul			

Appendix A.5. Inclusive dates for statistical weeks, 2002.

2002 Stat Week Calendar					
WEEK	FROM	THRU	WEEK	FROM	THRU
1	1-Jan	5-Jan	28	7-Jul	13-Jul
2	6-Jan	12-Jan	29	14-Jul	20-Jul
3	13-Jan	19-Jan	30	21-Jul	27-Jul
4	20-Jan	26-Jan	31	28-Jul	3-Aug
5	27-Jan	2-Feb	32	4-Aug	10-Aug
6	3-Feb	9-Feb	33	11-Aug	17-Aug
7	10-Feb	16-Feb	34	18-Aug	24-Aug
8	17-Feb	23-Feb	35	25-Aug	31-Aug
9	24-Feb	2-Mar	36	1-Sep	7-Sep
10	3-Mar	9-Mar	37	8-Sep	14-Sep
11	10-Mar	16-Mar	38	15-Sep	21-Sep
12	17-Mar	23-Mar	39	22-Sep	28-Sep
13	24-Mar	30-Mar	40	29-Sep	5-Oct
14	31-Mar	6-Apr	41	6-Oct	12-Oct
15	7-Apr	13-Apr	42	13-Oct	19-Oct
16	14-Apr	20-Apr	43	20-Oct	26-Oct
17	21-Apr	27-Apr	44	27-Oct	2-Nov
18	28-Apr	4-May	45	3-Nov	9-Nov
19	5-May	11-May	46	10-Nov	16-Nov
20	12-May	18-May	47	17-Nov	23-Nov
21	19-May	25-May	48	24-Nov	30-Nov
22	26-May	1-Jun	49	1-Dec	7-Dec
23	2-Jun	8-Jun	50	8-Dec	14-Dec
24	9-Jun	15-Jun	51	15-Dec	21-Dec
25	16-Jun	22-Jun	52	22-Dec	28-Dec
26	23-Jun	29-Jun	53	29-Dec	31-Dec
27	30-Jun	6-Jul			

Appendix B.1. Catches, number tagged, and CPUE of sockeye salmon in the fish wheels at Canyon Island, 1998.

		FISHING EFFORT			SOCKEYE					
Stat		FWI	FWII	Total	Total Catches		Tagged		Daily	Cumul.
Week	Date	Effort	Effort	Effort	Daily	Cum.	Daily	Cum.	CPUE	Prop. CPUE
18	2-May	14.00		14.00	0	0	0	0	0.0000	0.0000
19	3-May	24.00		24.00	0	0	0	0	0.0000	0.0000
19	4-May	24.00		24.00	0	0	0	0	0.0000	0.0000
19	5-May	24.00		24.00	0	0	0	0	0.0000	0.0000
19	6-May	23.92		23.92	0	0	0	0	0.0000	0.0000
19	7-May	23.83		23.83	0	0	0	0	0.0000	0.0000
19	8-May	24.00		24.00	0	0	0	0	0.0000	0.0000
19	9-May	9.00		9.00	0	0	0	0	0.0000	0.0000
20	10-May	0.00	0.00	0.00	0	0	0	0	0.0000	0.0000
20	11-May	0.00	4.25	4.25	0	0	0	0	0.0000	0.0000
20	12-May	0.00	23.75	23.75	0	0	0	0	0.0000	0.0000
20	13-May	0.00	21.33	21.33	0	0	0	0	0.0000	0.0000
20	14-May	0.00	24.00	24.00	0	0	0	0	0.0000	0.0000
20	15-May	0.00	24.00	24.00	0	0	0	0	0.0000	0.0000
20	16-May	8.00	23.58	31.58	0	0	0	0	0.0000	0.0000
21	17-May	22.75	23.58	46.33	0	0	0	0	0.0000	0.0000
21	18-May	23.50	23.25	46.75	0	0	0	0	0.0000	0.0000
21	19-May	22.58	22.58	45.16	0	0	0	0	0.0000	0.0000
21	20-May	23.33	23.16	46.49	0	0	0	0	0.0000	0.0000
21	21-May	23.58	23.08	46.66	0	0	0	0	0.0000	0.0000
21	22-May	23.67	22.92	46.59	0	0	0	0	0.0000	0.0000
21	23-May	23.50	22.50	46.00	0	0	0	0	0.0000	0.0000
22	24-May	23.50	23.25	46.75	0	0	0	0	0.0000	0.0000
22	25-May	22.75	23.08	45.83	0	0	0	0	0.0000	0.0000
22	26-May	13.50	16.16	29.66	0	0	0	0	0.0000	0.0000
22	27-May	0.00	0.00	0.00	0	0	0	0	0.0000	0.0000
22	28-May	0.00	0.00	0.00	0	0	0	0	0.0000	0.0000
22	29-May	0.00	0.00	0.00	0	0	0	0	0.0000	0.0000
22	30-May	0.00	0.00	0.00	0	0	0	0	0.0000	0.0000
23	31-May	0.00	0.00	0.00	0	0	0	0	0.0000	0.0000
23	1-Jun	11.83	12.75	24.58	1	1	1	1	0.0407	0.0004
23	2-Jun	23.50	23.08	46.58	0	1	0	1	0.0000	0.0004
23	3-Jun	23.50	23.16	46.66	2	3	2	3	0.0429	0.0008
23	4-Jun	23.08	23.67	46.75	0	3	0	3	0.0000	0.0008
23	5-Jun	23.75	23.33	47.08	4	7	4	7	0.0850	0.0017
23	6-Jun	23.75	23.00	46.75	6	13	6	13	0.1283	0.0030
24	7-Jun	23.67	22.92	46.59	13	26	13	26	0.2790	0.0058
24	8-Jun	23.75	23.08	46.83	13	39	12	38	0.2776	0.0086
24	9-Jun	23.75	23.00	46.75	3	42	3	41	0.0642	0.0092
24	10-Jun	23.67	23.16	46.83	6	48	5	46	0.1281	0.0105
24	11-Jun	23.75	23.25	47.00	7	55	7	53	0.1489	0.0120

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Appendix B.1. (Page 2 of 4).

		FISHING EFFORT			SOCKEYE					
Stat		FWI	FWII	Total	FW Catches		Tagged		Daily	Cumul.
Week	Date	Effort	Effort	Effort	Daily	Cum.	Daily	Cum.	CPUE	Prop. CPUE
24	12-Jun	23.25	23.16	46.41	9	64	9	62	0.1939	0.0139
24	13-Jun	23.08	22.50	45.58	13	77	13	75	0.2852	0.0168
25	14-Jun	22.92	23.25	46.17	14	91	13	88	0.3032	0.0198
25	15-Jun	23.42	22.67	46.09	23	114	23	111	0.4990	0.0248
25	16-Jun	22.67	23.25	45.92	13	127	13	124	0.2831	0.0277
25	17-Jun	23.08	22.67	45.75	37	164	37	161	0.8087	0.0358
25	18-Jun	23.16	22.42	45.58	32	196	31	192	0.7021	0.0428
25	19-Jun	22.92	22.75	45.67	57	253	56	248	1.2481	0.0553
25	20-Jun	22.50	21.58	44.08	117	370	115	363	2.6543	0.0820
26	21-Jun	23.00	22.50	45.50	88	458	85	448	1.9341	0.1014
26	22-Jun	23.75	22.25	46.00	87	545	86	534	1.8913	0.1203
26	23-Jun	23.00	22.42	45.42	84	629	80	614	1.8494	0.1389
26	24-Jun	23.41	23.25	46.66	70	699	63	677	1.5002	0.1539
26	25-Jun	23.50	23.00	46.50	35	734	29	706	0.7527	0.1615
26	26-Jun	23.08	22.75	45.83	32	766	30	736	0.6982	0.1685
26	27-Jun	22.83	22.92	45.75	46	812	46	782	1.0055	0.1786
27	28-Jun	22.16	22.83	44.99	96	908	89	871	2.1338	0.2000
27	29-Jun	22.58	21.58	44.16	161	1,069	154	1,025	3.6458	0.2366
27	30-Jun	22.33	21.92	44.25	183	1,252	169	1,194	4.1356	0.2780
27	1-Jul	22.92	18.58	41.50	76	1,328	72	1,266	1.8313	0.2964
27	2-Jul	23.42	23.25	46.67	37	1,365	35	1,301	0.7928	0.3044
27	3-Jul	23.75	23.33	47.08	13	1,378	13	1,314	0.2761	0.3071
27	4-Jul	23.75	22.83	46.58	47	1,425	43	1,357	1.0090	0.3172
28	5-Jul	17.67	22.83	40.50	59	1,484	58	1,415	1.4568	0.3319
28	6-Jul	0.00	21.92	21.92	85	1,569	83	1,498	3.8777	0.3708
28	7-Jul	0.00	22.25	22.25	63	1,632	61	1,559	2.8315	0.3992
28	8-Jul	9.67	23.00	32.67	25	1,657	23	1,582	0.7652	0.4068
28	9-Jul	23.16	22.92	46.08	19	1,676	14	1,596	0.4123	0.4110
28	10-Jul	23.16	23.50	46.66	24	1,700	23	1,619	0.5144	0.4161
28	11-Jul	23.16	23.25	46.41	35	1,735	33	1,652	0.7541	0.4237
29	12-Jul	23.08	23.16	46.24	50	1,785	49	1,701	1.0813	0.4345
29	13-Jul	22.67	21.75	44.42	83	1,868	78	1,779	1.8685	0.4533
29	14-Jul	22.75	22.25	45.00	93	1,961	88	1,867	2.0667	0.4740
29	15-Jul	22.58	22.33	44.91	77	2,038	72	1,939	1.7145	0.4912
29	16-Jul	22.50	22.75	45.25	56	2,094	47	1,986	1.2376	0.5036
29	17-Jul	22.58	22.33	44.91	59	2,153	56	2,042	1.3137	0.5168
29	18-Jul	22.58	22.92	45.50	62	2,215	58	2,100	1.3626	0.5305
30	19-Jul	22.75	13.25	36.00	47	2,262	40	2,140	1.3056	0.5436

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Appendix B.1. (Page 3 of 4).

		FISHING EFFORT			SOCKEYE					
Stat		FWI	FWII	Total	FW Catches		Tagged		Daily	Cumul.
Week	Date	Effort	Effort	Effort	Daily	Cum.	Daily	Cum.	CPUE	Prop. CPUE
30	20-Jul	22.42	21.42	43.84	110	2,372	102	2,242	2.5091	0.5687
30	21-Jul	22.08	21.83	43.91	109	2,481	96	2,338	2.4824	0.5936
30	22-Jul	22.00	22.33	44.33	59	2,540	49	2,387	1.3309	0.6070
30	23-Jul	22.00	21.83	43.83	51	2,591	44	2,431	1.1636	0.6186
30	24-Jul	22.83	22.50	45.33	51	2,642	46	2,477	1.1251	0.6299
30	25-Jul	22.92	22.25	45.17	37	2,679	32	2,509	0.8191	0.6381
31	26-Jul	22.67	22.16	44.83	83	2,762	73	2,582	1.8514	0.6567
31	27-Jul	22.50	21.33	43.83	135	2,897	125	2,707	3.0801	0.6876
31	28-Jul	22.32	22.00	44.32	126	3,023	120	2,827	2.8430	0.7161
31	29-Jul	23.08	22.67	45.75	55	3,078	50	2,877	1.2022	0.7282
31	30-Jul	23.08	22.67	45.75	49	3,127	41	2,918	1.0710	0.7389
31	31-Jul	14.92	14.67	29.59	19	3,146	19	2,937	0.6421	0.7454
31	1-Aug	0.00	0.00	0.00	0	3,146	0	2,937	0.0000	0.7454
32	2-Aug	0.00	0.00	0.00	0	3,146	0	2,937	0.0000	0.7454
32	3-Aug	8.00	0.00	8.00	0	3,146	0	2,937	0.0000	0.7454
32	4-Aug	19.42	0.00	19.42	42	3,188	38	2,975	2.1627	0.7671
32	5-Aug	20.92	10.00	30.92	52	3,240	47	3,022	1.6818	0.7839
32	6-Aug	22.75	22.75	45.50	59	3,299	53	3,075	1.2967	0.7969
32	7-Aug	22.75	23.16	45.91	37	3,336	31	3,106	0.8059	0.8050
32	8-Aug	22.25	22.50	44.75	69	3,405	59	3,165	1.5419	0.8205
33	9-Aug	22.58	22.50	45.08	63	3,468	54	3,219	1.3975	0.8345
33	10-Aug	22.67	22.83	45.50	53	3,521	46	3,265	1.1648	0.8462
33	11-Aug	22.83	23.08	45.91	40	3,561	36	3,301	0.8713	0.8549
33	12-Aug	22.83	23.16	45.99	18	3,579	13	3,314	0.3914	0.8589
33	13-Aug	23.16	23.08	46.24	23	3,602	17	3,331	0.4974	0.8638
33	14-Aug	23.16	23.33	46.49	18	3,620	11	3,342	0.3872	0.8677
33	15-Aug	22.42	22.58	45.00	37	3,657	26	3,368	0.8222	0.8760
34	16-Aug	22.33	22.08	44.41	64	3,721	55	3,423	1.4411	0.8904
34	17-Aug	22.00	22.42	44.42	73	3,794	60	3,483	1.6434	0.9069
34	18-Aug	22.00	22.42	44.42	68	3,862	58	3,541	1.5308	0.9223
34	19-Aug	22.33	23.08	45.41	40	3,902	25	3,566	0.8809	0.9311
34	20-Aug	23.00	22.83	45.83	31	3,933	24	3,590	0.6764	0.9379
34	21-Aug	23.00	22.92	45.92	18	3,951	11	3,601	0.3920	0.9418
34	22-Aug	22.83	23.00	45.83	15	3,966	13	3,614	0.3273	0.9451
35	23-Aug	23.50	23.50	47.00	16	3,982	13	3,627	0.3404	0.9485
35	24-Aug	23.33	23.08	46.41	22	4,004	18	3,645	0.4740	0.9533
35	25-Aug	23.08	22.75	45.83	36	4,040	32	3,677	0.7855	0.9612
35	26-Aug	23.25	23.42	46.67	28	4,068	19	3,696	0.6000	0.9672

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		FISHING EFFORT			SOCKEYE					
Stat		FWI	FWII	Total	FW Catches		Tagged		Daily	Cumul.
Week	Date	Effort	Effort	Effort	Daily	Cum.	Daily	Cum.	CPUE	Prop. CPUE
35	27-Aug	22.75	23.25	46.00	19	4,087	15	3,711	0.4130	0.9713
35	28-Aug	23.50	23.42	46.92	10	4,097	8	3,719	0.2131	0.9734
35	29-Aug	23.00	23.42	46.42	13	4,110	11	3,730	0.2801	0.9763
36	30-Aug	22.83	23.50	46.33	9	4,119	8	3,738	0.1943	0.9782
36	31-Aug	23.42	23.33	46.75	14	4,133	9	3,747	0.2995	0.9812
36	1-Sep	23.33	23.75	47.08	11	4,144	10	3,757	0.2336	0.9836
36	2-Sep	22.00	22.92	44.92	17	4,161	13	3,770	0.3785	0.9874
36	3-Sep	26.16	23.25	49.41	11	4,172	6	3,776	0.2226	0.9896
36	4-Sep	23.50	23.58	47.08	8	4,180	5	3,781	0.1699	0.9913
36	5-Sep	23.42	23.67	47.09	6	4,186	3	3,784	0.1274	0.9926
37	6-Sep	23.58	23.83	47.41	1	4,187	0	3,784	0.0211	0.9928
37	7-Sep	23.75	23.47	47.22	2	4,189	1	3,785	0.0424	0.9932
37	8-Sep	23.42	23.25	46.67	5	4,194	5	3,790	0.1071	0.9943
37	9-Sep	23.16	22.83	45.99	3	4,197	3	3,793	0.0652	0.9949
37	10-Sep	23.42	22.83	46.25	2	4,199	2	3,795	0.0432	0.9954
37	11-Sep	23.75	23.85	47.60	8	4,207	0	3,795	0.0000	0.9954
37	12-Sep	23.00	23.25	46.25	4	4,211	4	3,799	0.0865	0.9962
38	13-Sep	23.25	23.25	46.50	7	4,218	4	3,803	0.1505	0.9977
38	14-Sep	23.83	23.42	47.25	7	4,225	6	3,809	0.1481	0.9992
38	15-Sep	17.15	21.83	38.98	3	4,228	2	3,811	0.0770	1.0000
38	16-Sep	0.00	0.00	0.00	2	4,230	2	3,813	0.0000	1.0000

Appendix B.2. Catches, number tagged, and CPUE of sockeye salmon in the fish wheels at Canyon Island, 1999.

		FISHING EFFORT			SOCKEYE					
Stat		FWI	FWII	Total	Total Catches		Tagged		Daily	Cumul.
Week	Date	Effort	Effort	Effort	Daily	Cum.	Daily	Cum.	CPUE	Prop. CPUE
20	14-May		13.00	13.0	0	0	0	0	0.0000	0.0000
20	15-May	12.92	22.58	35.5	0	0	0	0	0.0000	0.0000
21	16-May	24.00	23.00	47.0	0	0	0	0	0.0000	0.0000
21	17-May	23.83	23.58	47.4	0	0	0	0	0.0000	0.0000
21	18-May	23.92	23.58	47.5	0	0	0	0	0.0000	0.0000
21	19-May	24.00	23.42	47.4	0	0	0	0	0.0000	0.0000
21	20-May	24.00	23.50	47.5	0	0	0	0	0.0000	0.0000
21	21-May	24.00	23.67	47.7	0	0	0	0	0.0000	0.0000
21	22-May	23.92	23.67	47.6	0	0	0	0	0.0000	0.0000
22	23-May	23.83	23.67	47.5	0	0	0	0	0.0000	0.0000
22	24-May	23.75	23.50	47.3	0	0	0	0	0.0000	0.0000
22	25-May	23.25	23.16	46.4	0	0	0	0	0.0000	0.0000
22	26-May	23.50	23.58	47.1	0	0	0	0	0.0000	0.0000
22	27-May	23.50	23.58	47.1	0	0	0	0	0.0000	0.0000
22	28-May	22.92	23.75	46.7	0	0	0	0	0.0000	0.0000
22	29-May	23.83	23.67	47.5	0	0	0	0	0.0000	0.0000
23	30-May	23.75	23.75	47.5	0	0	0	0	0.0000	0.0000
23	31-May	23.67	23.67	47.3	0	0	0	0	0.0000	0.0000
23	1-Jun	23.67	23.75	47.4	0	0	0	0	0.0000	0.0000
23	2-Jun	23.67	23.33	47.0	1	1	0	0	0.0213	0.0002
23	3-Jun	23.42	23.37	46.8	0	1	0	0	0.0000	0.0002
23	4-Jun	23.67	23.25	46.9	0	1	0	0	0.0000	0.0002
23	5-Jun	23.50	23.58	47.1	3	4	0	0	0.0637	0.0008
24	6-Jun	23.58	4.00	27.6	0	4	0	0	0.0000	0.0008
24	7-Jun	22.08	11.08	33.2	9	13	9	9	0.2714	0.0034
24	8-Jun	23.58	23.33	46.9	7	20	6	15	0.1492	0.0049
24	9-Jun	23.16	23.75	46.9	2	22	2	17	0.0426	0.0053
24	10-Jun	23.58	23.50	47.1	8	30	7	24	0.1699	0.0069
24	11-Jun	23.50	23.33	46.8	16	46	16	40	0.3417	0.0102
24	12-Jun	23.42	23.08	46.5	33	79	32	72	0.7097	0.0170
25	13-Jun	23.42	23.16	46.6	27	106	26	98	0.5796	0.0225
25	14-Jun	23.58	23.25	46.8	27	133	27	125	0.5766	0.0281
25	15-Jun	18.83	23.08	41.9	13	146	13	138	0.3102	0.0310
25	16-Jun	8.33	8.67	17.0	15	161	15	153	0.8824	0.0395
25	17-Jun	0.00	0.00	0.0	0	161	0	153	0.0000	0.0395
25	18-Jun	13.25	10.25	23.5	3	164	3	156	0.1277	0.0407
25	19-Jun	23.33	22.83	46.2	36	200	36	192	0.7799	0.0482
26	20-Jun	23.67	15.25	38.9	5	205	5	197	0.1285	0.0494
26	21-Jun	17.75	17.75	35.5	24	229	24	221	0.6761	0.0559
26	22-Jun	10.42	10.16	20.6	2	231	2	223	0.0972	0.0569
26	23-Jun	23.08	22.16	45.2	36	267	33	256	0.7958	0.0645

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Appendix B.2.(Page 2 of 4).

		FISHING EFFORT			SOCKEYE					
Stat		FWI	FWII	Total	Total Catches		Tagged		Daily	Cumul.
Week	Date	Effort	Effort	Effort	Daily	Cum.	Daily	Cum.	CPUE	Prop. CPUE
26	24-Jun	22.75	22.92	45.7	28	295	28	284	0.6131	0.0704
26	25-Jun	23.42	23.53	47.0	10	305	9	293	0.2130	0.0724
26	26-Jun	23.33	22.92	46.3	42	347	41	334	0.9081	0.0811
27	27-Jun	23.00	22.16	45.2	116	463	114	448	2.5686	0.1058
27	28-Jun	23.16	22.16	45.3	104	567	103	551	2.2948	0.1278
27	29-Jun	22.42	23.16	45.6	106	673	103	654	2.3256	0.1501
27	30-Jun	23.08	22.83	45.9	54	727	53	707	1.1762	0.1614
27	1-Jul	23.16	22.75	45.9	62	789	56	763	1.3505	0.1743
27	2-Jul	22.75	22.25	45.0	82	871	74	837	1.8222	0.1918
27	3-Jul	21.42	21.42	42.8	171	1,042	160	997	3.9916	0.2301
28	4-Jul	22.58	20.58	43.2	202	1,244	196	1,193	4.6803	0.2750
28	5-Jul	22.67	20.92	43.6	235	1,479	226	1,419	5.3911	0.3267
28	6-Jul	22.16	22.08	44.2	182	1,661	176	1,595	4.1139	0.3662
28	7-Jul	22.00	21.50	43.5	195	1,856	190	1,785	4.4828	0.4092
28	8-Jul	22.33	23.08	45.4	82	1,938	77	1,862	1.8058	0.4265
28	9-Jul	23.25	22.33	45.6	27	1,965	27	1,889	0.5924	0.4322
28	10-Jul	23.50	23.58	47.1	8	1,973	8	1,897	0.1699	0.4339
29	11-Jul	23.33	23.33	46.7	28	2,001	28	1,925	0.6001	0.4396
29	12-Jul	23.00	23.16	46.2	55	2,056	52	1,977	1.1915	0.4510
29	13-Jul	23.42	22.58	46.0	62	2,118	59	2,036	1.3478	0.4640
29	14-Jul	22.92	22.75	45.7	61	2,179	56	2,092	1.3357	0.4768
29	15-Jul	22.83	22.58	45.4	82	2,261	77	2,169	1.8058	0.4941
29	16-Jul	22.83	22.75	45.6	89	2,350	80	2,249	1.9526	0.5128
29	17-Jul	22.25	22.16	44.4	124	2,474	118	2,367	2.7922	0.5396
30	18-Jul	22.08	21.42	43.5	177	2,651	168	2,535	4.0690	0.5787
30	19-Jul	22.16	21.92	44.1	115	2,766	113	2,648	2.6089	0.6037
30	20-Jul	22.50	22.67	45.2	85	2,851	82	2,730	1.8818	0.6218
30	21-Jul	22.92	23.25	46.2	44	2,895	43	2,773	0.9530	0.6309
30	22-Jul	23.08	23.25	46.3	43	2,938	42	2,815	0.9281	0.6398
30	23-Jul	21.92	22.92	44.8	59	2,997	58	2,873	1.3158	0.6524
30	24-Jul	22.67	22.75	45.4	34	3,031	33	2,906	0.7486	0.6596
31	25-Jul	23.00	22.92	45.9	47	3,078	44	2,950	1.0235	0.6694
31	26-Jul	21.92	21.92	43.8	73	3,151	70	3,020	1.6651	0.6854
31	27-Jul	22.50	22.83	45.3	99	3,250	94	3,114	2.1840	0.7063
31	28-Jul	22.33	22.42	44.8	97	3,347	92	3,206	2.1676	0.7271
31	29-Jul	22.42	22.16	44.6	71	3,418	65	3,271	1.5926	0.7424
31	30-Jul	22.42	22.92	45.3	67	3,485	57	3,328	1.4777	0.7566
31	31-Jul	22.92	22.33	45.3	77	3,562	64	3,392	1.7017	0.7729

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Appendix B.2.(Page 3 of 4).

		FISHING EFFORT			SOCKEYE					
Stat		FWI	FWII	Total	Total Catches		Tagged		Daily	Cumul.
Week	Date	Effort	Effort	Effort	Daily	Cum.	Daily	Cum.	CPUE	Prop. CPUE
32	1-Aug	22.58	22.67	45.3	73	3,635	58	3,450	1.6133	0.7884
32	2-Aug	22.75	22.50	45.3	87	3,722	76	3,526	1.9227	0.8068
32	3-Aug	22.58	22.92	45.5	88	3,810	83	3,609	1.9341	0.8254
32	4-Aug	22.83	22.67	45.5	58	3,868	50	3,659	1.2747	0.8376
32	5-Aug	23.00	23.33	46.3	36	3,904	30	3,689	0.7770	0.8451
32	6-Aug	22.25	23.42	45.7	26	3,930	25	3,714	0.5693	0.8505
32	7-Aug	23.42	23.25	46.7	17	3,947	15	3,729	0.3643	0.8540
33	8-Aug	23.16	23.33	46.5	23	3,970	21	3,750	0.4947	0.8588
33	9-Aug	23.25	23.16	46.4	24	3,994	23	3,773	0.5171	0.8638
33	10-Aug	22.92	23.33	46.3	42	4,036	34	3,807	0.9081	0.8725
33	11-Aug	22.75	23.58	46.3	40	4,076	33	3,840	0.8634	0.8807
33	12-Aug	22.50	23.42	45.9	66	4,142	53	3,893	1.4373	0.8945
33	13-Aug	22.42	23.67	46.1	47	4,189	34	3,927	1.0197	0.9043
33	14-Aug	23.25	23.33	46.6	28	4,217	25	3,952	0.6011	0.9101
34	15-Aug	22.75	21.42	44.2	28	4,245	25	3,977	0.6339	0.9162
34	16-Aug	23.16	23.42	46.6	24	4,269	19	3,996	0.5152	0.9211
34	17-Aug	23.25	23.42	46.7	22	4,291	19	4,015	0.4714	0.9256
34	18-Aug	11.50	13.25	24.8	7	4,298	6	4,021	0.2828	0.9283
34	19-Aug	0.00	0.00	0.0		4,298	0	4,021	0.0000	0.9283
34	20-Aug	0.00	0.00	0.0		4,298	0	4,021	0.0000	0.9283
34	21-Aug	10.50	9.33	19.8	2	4,300	2	4,023	0.1009	0.9293
35	22-Aug	22.92	23.33	46.3	53	4,353	44	4,067	1.1459	0.9403
35	23-Aug	23.33	22.67	46.0	33	4,386	27	4,094	0.7174	0.9472
35	24-Aug	23.25	23.33	46.6	40	4,426	29	4,123	0.8587	0.9554
35	25-Aug	23.33	23.58	46.9	27	4,453	19	4,142	0.5756	0.9609
35	26-Aug	23.42	23.42	46.8	18	4,471	13	4,155	0.3843	0.9646
35	27-Aug	23.42	23.50	46.9	12	4,483	10	4,165	0.2558	0.9671
35	28-Aug	23.33	23.50	46.8	5	4,488	4	4,169	0.1068	0.9681
36	29-Aug	23.00	23.50	46.5	23	4,511	19	4,188	0.4946	0.9729
36	30-Aug	22.92	23.33	46.3	14	4,525	12	4,200	0.3027	0.9758
36	31-Aug	23.33	23.62	47.0	8	4,533	7	4,207	0.1704	0.9774
36	1-Sep	23.75	23.42	47.2	1	4,534	1	4,208	0.0212	0.9776
36	2-Sep	23.58	23.67	47.3	2	4,536	2	4,210	0.0423	0.9780
36	3-Sep	23.42	23.33	46.8	7	4,543	6	4,216	0.1497	0.9794
36	4-Sep	23.00	23.33	46.3	8	4,551	4	4,220	0.1727	0.9811
37	5-Sep	22.83	23.16	46.0	9	4,560	5	4,225	0.1957	0.9830
37	6-Sep	23.25	23.42	46.7	10	4,570	7	4,232	0.2143	0.9850
37	7-Sep	23.33	23.25	46.6	4	4,574	3	4,235	0.0859	0.9859

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Appendix B.2.(Page 4 of 4).

		FISHING EFFORT			SOCKEYE					
Stat		FWI	FWII	Total	Total Catches		Tagged		Daily	Cumul.
Week	Date	Effort	Effort	Effort	Daily	Cum.	Daily	Cum.	CPUE	Prop. CPUE
37	8-Sep	23.58	23.83	47.4	3	4,577	2	4,237	0.0633	0.9865
37	9-Sep	21.75	23.16	44.9	1	4,578	1	4,238	0.0223	0.9867
37	10-Sep	23.58	22.33	45.9	4	4,582	4	4,242	0.0871	0.9875
37	11-Sep	23.83	22.50	46.3	5	4,587	4	4,246	0.1079	0.9885
38	12-Sep	23.83	22.92	46.8	4	4,591	4	4,250	0.0856	0.9894
38	13-Sep	23.83	23.00	46.8	7	4,598	6	4,256	0.1495	0.9908
38	14-Sep	24.00	23.00	47.0	3	4,601	3	4,259	0.0638	0.9914
38	15-Sep	23.92	16.00	39.9	1	4,602	0	4,259	0.0251	0.9917
38	16-Sep	23.58	16.00	39.6	5	4,607	5	4,264	0.1263	0.9929
38	17-Sep	23.75	15.08	38.8	14	4,621	11	4,275	0.3605	0.9963
38	18-Sep	23.67	16.75	40.4	5	4,626	4	4,279	0.1237	0.9975
39	19-Sep	22.33	23.33	45.7	3	4,629	3	4,282	0.0657	0.9981
39	20-Sep	23.16	23.67	46.8	1	4,630	1	4,283	0.0214	0.9984
39	21-Sep	22.83	23.42	46.3	3	4,633	3	4,286	0.0649	0.9990
39	22-Sep	23.33	23.58	46.9	0	4,633	0	4,286	0.0000	0.9990
39	23-Sep	23.50	23.92	47.4	0	4,633	0	4,286	0.0000	0.9990
39	24-Sep	23.50	23.92	47.4	1	4,634	1	4,287	0.0211	0.9992
39	25-Sep	23.00	22.25	45.3	0	4,634	0	4,287	0.0000	0.9992
40	26-Sep	23.25		23.3	2	4,636	1	4,288	0.0860	1.0000
40	27-Sep	23.50		23.5	0	4,636	0	4,288	0.0000	1.0000
40	28-Sep	9.00		9.0	0	4,636	0	4,288	0.0000	1.0000

Appendix B.3. Catches, number tagged, and CPUE of sockeye salmon in the fish wheels at Canyon Island, 2000.

		FISHING EFFORT			SOCKEYE					
Stat		FWI	FWII	Total	Total Catches		Tagged		Daily	Cumul.
Week	Date	Effort	Effort	Effort	Daily	Cum.	Daily	Cum.	CPUE	Prop. CPUE
21	14-May	9.67	6.50	16.2	0	0	0	0	0.0000	0.0000
21	15-May	23.75	23.50	47.3	0	0	0	0	0.0000	0.0000
21	16-May	23.83	23.58	47.4	0	0	0	0	0.0000	0.0000
21	17-May	23.83	23.75	47.6	0	0	0	0	0.0000	0.0000
21	18-May	23.83	23.67	47.5	0	0	0	0	0.0000	0.0000
21	19-May	23.58	23.67	47.3	0	0	0	0	0.0000	0.0000
21	20-May	23.33	23.50	46.8	0	0	0	0	0.0000	0.0000
22	21-May	23.58	23.58	47.2	0	0	0	0	0.0000	0.0000
22	22-May	23.75	23.75	47.5	0	0	0	0	0.0000	0.0000
22	23-May	18.50	17.33	35.8	0	0	0	0	0.0000	0.0000
22	24-May	23.75	23.67	47.4	0	0	0	0	0.0000	0.0000
22	25-May	23.83	23.83	47.7	0	0	0	0	0.0000	0.0000
22	26-May	23.92	23.75	47.7	0	0	0	0	0.0000	0.0000
22	27-May	23.83	23.67	47.5	0	0	0	0	0.0000	0.0000
23	28-May	23.83	23.83	47.7	0	0	0	0	0.0000	0.0000
23	29-May	23.83	23.75	47.6	0	0	0	0	0.0000	0.0000
23	30-May	23.75	23.00	46.8	2	2	0	0	0.0428	0.0003
23	31-May	23.75	23.83	47.6	1	3	1	1	0.0210	0.0005
23	1-Jun	23.50	23.67	47.2	7	10	2	3	0.1484	0.0016
23	2-Jun	23.83	23.92	47.8	5	15	4	7	0.1047	0.0024
23	3-Jun	23.33	23.67	47.0	1	16	1	8	0.0213	0.0026
24	4-Jun	23.75	23.83	47.6	2	18	2	10	0.0420	0.0029
24	5-Jun	23.33	23.42	46.8	15	33	14	24	0.3209	0.0054
24	6-Jun	23.42	23.50	46.9	9	42	9	33	0.1918	0.0068
24	7-Jun	23.67	23.42	47.1	6	48	6	39	0.1274	0.0078
24	8-Jun	23.08	23.50	46.6	25	73	23	62	0.5367	0.0119
24	9-Jun	23.08	23.17	46.3	45	118	44	106	0.9730	0.0193
24	10-Jun	22.50	22.75	45.3	60	178	59	165	1.3260	0.0295
25	11-Jun	22.50	22.83	45.3	37	215	36	201	0.8162	0.0357
25	12-Jun	23.25	23.17	46.4	22	237	22	223	0.4739	0.0393
25	13-Jun	22.92	23.50	46.4	36	273	36	259	0.7755	0.0452
25	14-Jun	23.33	23.08	46.4	39	312	39	298	0.8403	0.0517
25	15-Jun	9.17	9.50	18.7	13	325	13	311	0.6963	0.0570
25	16-Jun	23.50	23.33	46.8	46	371	44	355	0.9823	0.0645
25	17-Jun	23.16	23.67	46.8	45	416	37	392	0.9609	0.0718
26	18-Jun	22.42	23.08	45.5	60	476	54	446	1.3187	0.0819
26	19-Jun	22.58	23.33	45.9	70	546	60	506	1.5247	0.0936
26	20-Jun	22.25	23.08	45.3	102	648	94	600	2.2502	0.1107
26	21-Jun	21.33	23.08	44.4	65	713	57	657	1.4636	0.1219
26	22-Jun	22.58	23.50	46.1	55	768	46	703	1.1936	0.1311
26	23-Jun	21.83	23.42	45.3	50	818	46	749	1.1050	0.1395

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Stat Week	Date	FISHING EFFORT FWI Effort	FWII Effort	Total Effort	SOCKEYE Total Catches Daily	Cum.	Tagged Daily	Cum.	Daily CPUE	Cumul. Prop. CPUE
26	24-Jun	22.08	22.58	44.7	106	924	106	855	2.3735	0.1576
27	25-Jun	20.83	23.08	43.9	169	1,093	161	1,016	3.8488	0.1870
27	26-Jun	21.50	22.83	44.3	199	1,292	195	1,211	4.4891	0.2213
27	27-Jun	21.75	22.83	44.6	150	1,442	144	1,355	3.3647	0.2470
27	28-Jun	22.15	23.00	45.2	128	1,570	120	1,475	2.8350	0.2687
27	29-Jun	22.92	23.25	46.2	68	1,638	65	1,540	1.4728	0.2800
27	30-Jun	22.92	23.25	46.2	62	1,700	61	1,601	1.3429	0.2902
27	1-Jul	23.00	23.67	46.7	42	1,742	39	1,640	0.8999	0.2971
28	2-Jul	22.50	23.58	46.1	61	1,803	56	1,696	1.3238	0.3072
28	3-Jul	23.00	23.08	46.1	84	1,887	80	1,776	1.8229	0.3211
28	4-Jul	22.58	23.08	45.7	61	1,948	59	1,835	1.3360	0.3313
28	5-Jul	22.58	23.58	46.2	84	2,032	79	1,914	1.8198	0.3452
28	6-Jul	22.00	23.08	45.1	89	2,121	86	2,000	1.9743	0.3603
28	7-Jul	23.00	23.00	46.0	104	2,225	101	2,101	2.2609	0.3776
28	8-Jul	22.58	22.92	45.5	80	2,305	76	2,177	1.7582	0.3910
29	9-Jul	22.67	23.67	46.3	66	2,371	64	2,241	1.4243	0.4019
29	10-Jul	22.17	22.67	44.8	101	2,472	98	2,339	2.2525	0.4191
29	11-Jul	22.75	23.33	46.1	92	2,564	91	2,430	1.9965	0.4344
29	12-Jul	23.00	23.08	46.1	56	2,620	55	2,485	1.2153	0.4437
29	13-Jul	22.50	23.00	45.5	73	2,693	65	2,550	1.6044	0.4559
29	14-Jul	23.08	23.08	46.2	40	2,733	40	2,590	0.8666	0.4626
29	15-Jul	23.17	23.08	46.3	67	2,800	65	2,655	1.4486	0.4736
30	16-Jul	22.92	23.42	46.3	54	2,854	52	2,707	1.1653	0.4825
30	17-Jul	22.58	23.08	45.7	82	2,936	74	2,781	1.7959	0.4962
30	18-Jul	22.75	22.83	45.6	138	3,074	131	2,912	3.0276	0.5194
30	19-Jul	22.92	22.92	45.8	106	3,180	103	3,015	2.3124	0.5370
30	20-Jul	22.92	22.92	45.8	72	3,252	68	3,083	1.5707	0.5490
30	21-Jul	22.83	22.00	44.8	61	3,313	57	3,140	1.3607	0.5594
30	22-Jul	22.08	22.67	44.8	70	3,383	61	3,201	1.5642	0.5714
31	23-Jul	22.83	22.75	45.6	75	3,458	74	3,275	1.6455	0.5840
31	24-Jul	14.17	14.33	28.5	37	3,495	35	3,310	1.2982	0.5939
31	25-Jul			0.0		3,495		3,310	0.0000	0.5939
31	26-Jul			0.0		3,495		3,310	0.0000	0.5939
31	27-Jul	15.17	13.33	28.5	25	3,520	23	3,333	0.8772	0.6006
31	28-Jul	22.50	23.17	45.7	57	3,577	50	3,383	1.2481	0.6101
31	29-Jul	22.50	22.83	45.3	33	3,610	28	3,411	0.7280	0.6157
32	30-Jul	22.50	22.92	45.4	69	3,679	64	3,475	1.5192	0.6273
32	31-Jul	22.33	22.40	44.7	121	3,800	111	3,586	2.7051	0.6480

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		FISHING EFFORT			SOCKEYE					
Stat		FWI	FWII	Total	Total Catches		Tagged		Daily	Cumul.
Week	Date	Effort	Effort	Effort	Daily	Cum.	Daily	Cum.	CPUE	Prop. CPUE
32	1-Aug	22.00	21.92	43.9	186	3,986	180	3,766	4.2350	0.6803
32	2-Aug	20.75	20.92	41.7	246	4,232	233	3,999	5.9035	0.7254
32	3-Aug	22.92	22.67	45.6	93	4,325	86	4,085	2.0399	0.7410
32	4-Aug	22.83	23.50	46.3	62	4,387	58	4,143	1.3382	0.7512
32	5-Aug	22.33	22.25	44.6	203	4,590	193	4,336	4.5536	0.7860
33	6-Aug	22.58	22.75	45.3	206	4,796	185	4,521	4.5445	0.8207
33	7-Aug	22.75	22.08	44.8	177	4,973	163	4,684	3.9482	0.8509
33	8-Aug	22.08	22.33	44.4	146	5,119	132	4,816	3.2875	0.8760
33	9-Aug	22.58	22.83	45.4	81	5,200	72	4,888	1.7837	0.8897
33	10-Aug	22.42	22.83	45.3	80	5,280	78	4,966	1.7680	0.9032
33	11-Aug	22.83	23.25	46.1	50	5,330	43	5,009	1.0851	0.9115
33	12-Aug	22.33	23.25	45.6	46	5,376	42	5,051	1.0092	0.9192
34	13-Aug	22.58	23.00	45.6	57	5,433	53	5,104	1.2505	0.9287
34	14-Aug	23.00	22.75	45.8	55	5,488	49	5,153	1.2022	0.9379
34	15-Aug	23.42	22.92	46.3	29	5,517	24	5,177	0.6258	0.9427
34	16-Aug	22.92	23.33	46.3	44	5,561	40	5,217	0.9514	0.9500
34	17-Aug	23.17	23.33	46.5	31	5,592	25	5,242	0.6667	0.9551
34	18-Aug	23.17	23.08	46.3	39	5,631	35	5,277	0.8432	0.9615
34	19-Aug	22.83	22.58	45.4	40	5,671	34	5,311	0.8809	0.9682
35	20-Aug	23.08	23.33	46.4	20	5,691	18	5,329	0.4309	0.9715
35	21-Aug	23.08	23.42	46.5	26	5,717	23	5,352	0.5591	0.9758
35	22-Aug	22.67	23.17	45.8	23	5,740	20	5,372	0.5017	0.9796
35	23-Aug	23.33	23.58	46.9	8	5,748	7	5,379	0.1705	0.9809
35	24-Aug	22.67	23.25	45.9	16	5,764	13	5,392	0.3484	0.9836
35	25-Aug	23.08	23.33	46.4	14	5,778	12	5,404	0.3017	0.9859
35	26-Aug	23.00	23.17	46.2	16	5,794	14	5,418	0.3465	0.9885
36	27-Aug	23.08	23.67	46.8	6	5,800	4	5,422	0.1283	0.9895
36	28-Aug	22.92	23.00	45.9	11	5,811	9	5,431	0.2395	0.9914
36	29-Aug	22.33	23.33	45.7	9	5,820	8	5,439	0.1971	0.9929
36	30-Aug	23.25	23.50	46.8	3	5,823	3	5,442	0.0642	0.9934
36	31-Aug	23.33	23.25	46.6	4	5,827	2	5,444	0.0859	0.9940
36	1-Sep	23.08	23.17	46.3	6	5,833	6	5,450	0.1297	0.9950
36	2-Sep	23.75	23.25	47.0	0	5,833	0	5,450	0.0000	0.9950
37	3-Sep		22.83	22.8	0	5,833	0	5,450	0.0000	0.9950
37	4-Sep	6.25	23.83	30.1	0	5,833	0	5,450	0.0000	0.9950
37	5-Sep	23.33	22.42	45.8	1	5,834	0	5,450	0.0219	0.9952
37	6-Sep	22.50	23.42	45.9	12	5,846	0	5,450	0.2613	0.9972
37	7-Sep	23.08	23.33	46.4	0	5,846	0	5,450	0.0000	0.9972

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		FISHING EFFORT			SOCKEYE					
Stat		FWI	FWII	Total	Total Catches		Tagged		Daily	Cumul.
Week	Date	Effort	Effort	Effort	Daily	Cum.	Daily	Cum.	CPUE	Prop. CPUE
37	8-Sep	22.75	23.50	46.3	1	5,847	0	5,450	0.0216	0.9973
37	9-Sep	22.92	23.42	46.3	2	5,849	0	5,450	0.0432	0.9977
38	10-Sep	15.75	23.67	39.4	2	5,851	0	5,450	0.0507	0.9980
38	11-Sep	7.00	23.42	30.4	0	5,851	0	5,450	0.0000	0.9980
38	12-Sep	23.50	23.42	46.9	3	5,854	0	5,450	0.0639	0.9985
38	13-Sep	23.42	23.42	46.8	2	5,856	0	5,450	0.0427	0.9989
38	14-Sep	23.58	23.67	47.3	1	5,857	0	5,450	0.0212	0.9990
38	15-Sep	23.17	23.75	46.9	0	5,857	0	5,450	0.0000	0.9990
38	16-Sep	23.25	23.67	46.9	1	5,858	0	5,450	0.0213	0.9992
39	17-Sep	23.17	23.75	46.9	2	5,860	0	5,450	0.0426	0.9995
39	18-Sep	23.25	23.83	47.1	2	5,862	0	5,450	0.0425	0.9998
39	19-Sep	22.58	23.75	46.3	0	5,862	0	5,450	0.0000	0.9998
39	20-Sep	22.92	23.50	46.4	1	5,863	0	5,450	0.0215	1.0000
39	21-Sep	22.83	23.83	46.7	0	5,863	0	5,450	0.0000	1.0000
39	22-Sep	23.33	23.67	47.0	0	5,863	0	5,450	0.0000	1.0000
39	23-Sep	23.58	9.17	32.8	0	5,863	0	5,450	0.0000	1.0000
40	24-Sep	23.50			0	5,863	0	5,450	0.0000	1.0000
40	25-Sep	23.58			0	5,863	0	5,450	0.0000	1.0000
40	26-Sep	23.67			0	5,863	0	5,450	0.0000	1.0000
40	27-Sep	23.50			1	5,864	0	5,450	0.0000	1.0000
40	28-Sep	22.83			1	5,865	0	5,450	0.0000	1.0000

Appendix B.4. Catches, number tagged, and CPUE of sockeye salmon in the fish wheels at Canyon Island, 2001.

		FISHING EFFORT			SOCKEYE					
Stat		FWI	FWII	Total	Total Catches		Tagged		Daily	Cumul.
Week	Date	Effort	Effort	Effort	Daily	Cum.	Daily	Cum.	CPUE	Prop. CPUE
22	27-May	0.00	12.50	12.5	0	0	0	0	0.0000	0.0000
22	28-May	23.50	23.00	46.5	0	0	0	0	0.0000	0.0000
22	29-May	23.25	23.08	46.3	1	1	0	0	0.0216	0.0002
22	30-May	23.33	23.66	47.0	0	1	0	0	0.0000	0.0002
22	31-May	23.83	23.96	47.8	0	1	0	0	0.0000	0.0002
22	1-Jun	23.33	23.42	46.8	1	2	1	1	0.0214	0.0003
22	2-Jun	23.60	23.75	47.4	1	3	1	2	0.0211	0.0005
23	3-Jun	23.78	23.83	47.6	1	4	0	2	0.0210	0.0006
23	4-Jun	23.25	23.42	46.7	2	6	0	2	0.0429	0.0009
23	5-Jun	23.50	23.50	47.0	11	17	2	4	0.2340	0.0026
23	6-Jun	22.58	21.83	44.4	22	39	9	13	0.4954	0.0061
23	7-Jun	23.17	23.50	46.7	23	62	8	21	0.4928	0.0097
23	8-Jun	23.00	23.58	46.6	15	77	15	36	0.3220	0.0120
23	9-Jun	22.92	23.58	46.5	11	88	8	44	0.2366	0.0137
24	10-Jun	23.17	23.50	46.7	8	96	7	51	0.1714	0.0149
24	11-Jun	23.08	23.42	46.5	15	111	13	64	0.3226	0.0172
24	12-Jun	23.42	23.58	47.0	16	127	16	80	0.3404	0.0197
24	13-Jun	23.67	22.58	46.3	12	139	12	92	0.2595	0.0215
24	14-Jun	23.50	23.25	46.8	16	155	15	107	0.3422	0.0240
24	15-Jun	23.25	23.25	46.5	26	181	24	131	0.5591	0.0280
24	16-Jun	23.53	23.25	46.8	56	237	46	177	1.1971	0.0365
25	17-Jun	23.00	23.33	46.3	40	277	32	209	0.8634	0.0427
25	18-Jun	23.30	23.50	46.8	47	324	42	251	1.0043	0.0499
25	19-Jun	22.92	22.75	45.7	81	405	77	328	1.7736	0.0626
25	20-Jun	23.08	23.25	46.3	47	452	42	370	1.0145	0.0699
25	21-Jun	23.58	23.17	46.8	19	471	19	389	0.4064	0.0728
25	22-Jun	23.92	23.67	47.6	3	474	3	392	0.0630	0.0733
25	23-Jun	23.42	20.75	44.2	18	492	18	410	0.4075	0.0762
26	24-Jun	22.58	23.00	45.6	71	563	69	479	1.5577	0.0873
26	25-Jun	22.25	23.17	45.4	94	657	91	570	2.0696	0.1022
26	26-Jun	21.92	22.75	44.7	107	764	105	675	2.3953	0.1193
26	27-Jun	21.83	23.17	45.0	96	860	95	770	2.1333	0.1346
26	28-Jun	23.17	23.75	46.9	38	898	36	806	0.8099	0.1404
26	29-Jun	22.83	23.58	46.4	47	945	45	851	1.0127	0.1476
26	30-Jun	22.58	22.58	45.2	138	1,083	132	983	3.0558	0.1695
27	1-Jul	21.59	23.08	44.7	113	1,196	106	1,089	2.5297	0.1877
27	2-Jul	22.25	22.75	45.0	146	1,342	140	1,229	3.2444	0.2109
27	3-Jul	22.58	23.00	45.6	118	1,460	111	1,340	2.5889	0.2294
27	4-Jul	22.25	23.17	45.4	102	1,562	95	1,435	2.2457	0.2455
27	5-Jul	23.00	23.25	46.3	55	1,617	48	1,483	1.1892	0.2540
27	6-Jul	23.00	23.22	46.2	44	1,661	35	1,518	0.9520	0.2609

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		FISHING EFFORT			SOCKEYE					
Stat		FWI	FWII	Total	Total Catches		Tagged		Daily	Cumul.
Week	Date	Effort	Effort	Effort	Daily	Cum.	Daily	Cum.	CPUE	Prop. CPUE
27	7-Jul	23.33	23.50	46.8	26	1,687	24	1,542	0.5552	0.2648
28	8-Jul	22.92	22.92	45.8	78	1,765	71	1,613	1.7016	0.2770
28	9-Jul	22.75	22.92	45.7	89	1,854	82	1,695	1.9488	0.2910
28	10-Jul	23.00	23.50	46.5	57	1,911	53	1,748	1.2258	0.2998
28	11-Jul	23.08	23.42	46.5	51	1,962	43	1,791	1.0968	0.3076
28	12-Jul	23.00	23.42	46.4	24	1,986	23	1,814	0.5170	0.3113
28	13-Jul	23.17	23.42	46.6	32	2,018	29	1,843	0.6868	0.3163
28	14-Jul	22.50	23.17	45.7	72	2,090	65	1,908	1.5765	0.3275
29	15-Jul	22.25	22.67	44.9	152	2,242	141	2,049	3.3838	0.3518
29	16-Jul	22.17	23.08	45.3	184	2,426	176	2,225	4.0663	0.3809
29	17-Jul	21.42	23.33	44.8	177	2,603	161	2,386	3.9553	0.4092
29	18-Jul	22.50	23.25	45.8	82	2,685	69	2,455	1.7923	0.4221
29	19-Jul	22.58	23.42	46.0	102	2,787	90	2,545	2.2174	0.4380
29	20-Jul	22.75	23.17	45.9	81	2,868	63	2,608	1.7639	0.4506
29	21-Jul	22.25	22.92	45.2	148	3,016	128	2,736	3.2765	0.4741
30	22-Jul	22.92	22.33	45.3	133	3,149	126	2,862	2.9392	0.4951
30	23-Jul	23.25	19.92	43.2	291	3,440	274	3,136	6.7408	0.5434
30	24-Jul	22.50	21.42	43.9	343	3,783	318	3,454	7.8097	0.5994
30	25-Jul	21.75	21.25	43.0	270	4,053	239	3,693	6.2791	0.6443
30	26-Jul	22.42	22.25	44.7	203	4,256	174	3,867	4.5444	0.6769
30	27-Jul	22.92	22.58	45.5	145	4,401	114	3,981	3.1868	0.6997
30	28-Jul	22.42	23.33	45.8	91	4,492	70	4,051	1.9891	0.7140
31	29-Jul	23.25	23.42	46.7	63	4,555	56	4,107	1.3499	0.7236
31	30-Jul	22.50	22.67	45.2	159	4,714	143	4,250	3.5200	0.7488
31	31-Jul	22.08	22.67	44.8	179	4,893	170	4,420	4.0000	0.7775
31	1-Aug	22.50	23.50	46.0	99	4,992	88	4,508	2.1522	0.7929
31	2-Aug	22.75	23.67	46.4	74	5,066	58	4,566	1.5941	0.8043
31	3-Aug	22.83	23.67	46.5	64	5,130	45	4,611	1.3763	0.8142
31	4-Aug	23.42	23.75	47.2	24	5,154	18	4,629	0.5088	0.8178
32	5-Aug	23.25	23.50	46.8	61	5,215	54	4,683	1.3048	0.8272
32	6-Aug	22.75	23.00	45.8	128	5,343	113	4,796	2.7978	0.8472
32	7-Aug	22.50	22.58	45.1	184	5,527	166	4,962	4.0816	0.8765
32	8-Aug	23.33	23.17	46.5	48	5,575	42	5,004	1.0323	0.8839
32	9-Aug	9.17	9.58	18.8	31	5,606	28	5,032	1.6533	0.8957
32	10-Aug	0.00	0.00	0.0		5,606		5,032	0.0000	0.8957
32	11-Aug	6.67	5.58	12.3	22	5,628	17	5,049	1.7959	0.9086
33	12-Aug	22.25	13.83	36.1	84	5,712	66	5,115	2.328	0.9252
33	13-Aug	22.75	0.00	22.8	60	5,772	38	5,153	0.0000	0.9252

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		FISHING EFFORT			SOCKEYE					
Stat		FWI	FWII	Total	Total Catches		Tagged		Daily	Cumul.
Week	Date	Effort	Effort	Effort	Daily	Cum.	Daily	Cum.	CPUE	Prop. CPUE
33	14-Aug	22.25	3.00	25.3	67	5,839	54	5,207	2.6535	0.9442
33	15-Aug	21.25	23.67	44.9	24	5,863	18	5,225	0.5343	0.9481
33	16-Aug	23.25	23.50	46.8	32	5,895	26	5,251	0.6845	0.9530
33	17-Aug	23.42	23.67	47.1	28	5,923	23	5,274	0.5946	0.9572
33	18-Aug	23.42	23.92	47.3	10	5,933	4	5,278	0.2112	0.9587
34	19-Aug	23.42	23.75	47.2	25	5,958	15	5,293	0.5300	0.9625
34	20-Aug	23.42	23.50	46.9	15	5,973	12	5,305	0.3197	0.9648
34	21-Aug	23.50	23.67	47.2	18	5,991	12	5,317	0.3816	0.9676
34	22-Aug	23.42	23.67	47.1	24	6,015	17	5,334	0.5097	0.9712
34	23-Aug	23.67	23.67	47.3	22	6,037	11	5,345	0.4647	0.9745
34	24-Aug	23.50	23.75	47.3	8	6,045	6	5,351	0.1693	0.9758
34	25-Aug	23.58	23.67	47.3	19	6,064	16	5,367	0.4021	0.9786
35	26-Aug	23.50	23.75	47.3	6	6,070	4	5,371	0.1270	0.9796
35	27-Aug	23.00	23.00	46.0	8	6,078	8	5,379	0.1739	0.9808
35	28-Aug	22.92	23.58	46.5	8	6,086	6	5,385	0.1720	0.9820
35	29-Aug	23.50	23.75	47.3	12	6,098	10	5,395	0.2540	0.9838
35	30-Aug	23.25	23.33	46.6	13	6,111	11	5,406	0.2791	0.9858
35	31-Aug	23.08	23.67	46.8	12	6,123	6	5,412	0.2567	0.9877
35	1-Sep	23.08	23.75	46.8	15	6,138	8	5,420	0.3203	0.9900
36	2-Sep	23.08	23.67	46.8	11	6,149	5	5,425	0.2353	0.9917
36	3-Sep	22.83	23.67	46.5	8	6,157	5	5,430	0.1720	0.9929
36	4-Sep	23.75	23.75	47.5	4	6,161	4	5,434	0.0842	0.9935
36	5-Sep	23.58	23.75	47.3	4	6,165	4	5,438	0.0845	0.9941
36	6-Sep	23.50	23.67	47.2	4	6,169	2	5,440	0.0848	0.9947
36	7-Sep	23.50	23.67	47.2	3	6,172	2	5,442	0.0636	0.9952
36	8-Sep	23.25	23.08	46.3	5	6,177	3	5,445	0.1079	0.9959
37	9-Sep	23.00	23.92	46.9	8	6,185	5	5,450	0.1705	0.9972
37	10-Sep	0.00	23.67	23.7	0	6,185	0	5,450	0.0000	0.9972
37	11-Sep	0.00	0.00	0.0	2	6,187	0	5,450	0.0000	0.9972
37	12-Sep	0.00	0.00	0.0	0	6,187	0	5,450	0.0000	0.9972
37	13-Sep	14.75	14.42	29.2	0	6,187	0	5,450	0.0000	0.9972
37	14-Sep	23.08	23.67	46.8	2	6,189	0	5,450	0.0428	0.9975
37	15-Sep	23.08	23.67	46.8	4	6,193	0	5,450	0.0856	0.9981
38	16-Sep	22.17	23.67	45.8	0	6,193	0	5,450	0.0000	0.9981
38	17-Sep	23.17	23.92	47.1	1	6,194	0	5,450	0.0212	0.9982
38	18-Sep	23.17	23.92	47.1	2	6,196	0	5,450	0.0425	0.9985
38	19-Sep	23.50	23.83	47.3	2	6,198	0	5,450	0.0423	0.9988
38	20-Sep	22.75	16.92	39.7	0	6,198	0	5,450	0.0000	0.9988

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		FISHING EFFORT			SOCKEYE					
Stat		FWI	FWII	Total	Total Catches		Tagged		Daily	Cumul.
Week	Date	Effort	Effort	Effort	Daily	Cum.	Daily	Cum.	CPUE	Prop. CPUE
38	21-Sep	23.58	0.00	23.6	0	6,198	0	5,450	0.0000	0.9988
38	22-Sep	23.42	0.00	23.4	0	6,198	0	5,450	0.0000	0.9988
39	23-Sep	22.92	0.00	22.9	0	6,198	0	5,450	0.0000	0.9988
39	24-Sep	23.17	0.00	23.2	0	6,198	0	5,450	0.0000	0.9988
39	25-Sep	23.33	0.00	23.3	1	6,199	0	5,450	0.0429	0.9991
39	26-Sep	23.43	0.00	23.4	0	6,199	0	5,450	0.0000	0.9991
39	27-Sep	8.42	0.00	8.4	1	6,200	0	5,450	0.1188	1.0000
39	28-Sep	0.00	0.00	0.0	1	6,201	0	5,450	0.0000	1.0000

Appendix B.5. Catches, number tagged, and CPUE of sockeye salmon in the fish wheels at Canyon Island, 2002.

		FISHING EFFORT			SOCKEYE					
Stat		FWI	FWII	Total	Total Catches		Tagged		Daily	Cumul.
Week	Date	Effort	Effort	Effort	Daily	Cum.	Daily	Cum.	CPUE	Prop. CPUE
21	19-May	4.33		4.3	0	0	0	0	0.0000	0.0000
21	20-May	21.33		21.3	0	0	0	0	0.0000	0.0000
21	21-May	23.33	5.75	29.1	0	0	0	0	0.0000	0.0000
21	22-May	23.17	23.25	46.4	0	0	0	0	0.0000	0.0000
21	23-May	23.25	23.58	46.8	0	0	0	0	0.0000	0.0000
21	24-May	22.58	23.75	46.3	0	0	0	0	0.0000	0.0000
21	25-May	23.33	23.92	47.3	0	0	0	0	0.0000	0.0000
22	26-May	23.58	23.50	47.1	0	0	0	0	0.0000	0.0000
22	27-May	23.33	23.75	47.1	0	0	0	0	0.0000	0.0000
22	28-May	23.25	22.83	46.1	0	0	0	0	0.0000	0.0000
22	29-May	23.50	23.58	47.1	0	0	0	0	0.0000	0.0000
22	30-May	23.58	23.58	47.2	4	4	4	4	0.0848	0.0007
22	31-May	23.25	23.58	46.8	1	5	1	5	0.0214	0.0008
22	1-Jun	22.00	22.67	44.7	5	10	5	10	0.1119	0.0017
23	2-Jun	22.00	22.75	44.8	3	13	3	13	0.0670	0.0022
23	3-Jun	23.00	23.00	46.0	11	24	10	23	0.2391	0.0041
23	4-Jun	23.00	23.58	46.6	14	38	14	37	0.3006	0.0064
23	5-Jun	23.17	23.25	46.4	25	63	22	59	0.5386	0.0106
23	6-Jun	23.17	23.17	46.3	18	81	18	77	0.3884	0.0137
23	7-Jun	23.50	22.58	46.1	14	95	12	89	0.3038	0.0160
23	8-Jun	23.33	23.33	46.7	21	116	21	110	0.4501	0.0196
24	9-Jun	22.67	23.33	46.0	38	154	37	147	0.8261	0.0260
24	10-Jun	23.00	23.33	46.3	47	201	45	192	1.0145	0.0339
24	11-Jun	22.15	22.25	44.4	134	335	133	325	3.0180	0.0575
24	12-Jun	23.17	22.42	45.6	78	413	77	402	1.7109	0.0708
24	13-Jun	23.25	23.17	46.4	45	458	42	444	0.9694	0.0784
24	14-Jun	22.75	22.75	45.5	91	549	91	535	2.0000	0.0940
24	15-Jun	22.67	23.00	45.7	102	651	100	635	2.2334	0.1114
25	16-Jun	23.67	22.92	46.6	39	690	39	674	0.8371	0.1179
25	17-Jun	23.58	23.33	46.9	40	730	39	713	0.8527	0.1246
25	18-Jun	22.75	23.00	45.8	99	829	98	811	2.1639	0.1415
25	19-Jun	23.17	23.42	46.6	88	917	85	896	1.8888	0.1562
25	20-Jun	23.25	23.42	46.7	37	954	36	932	0.7928	0.1624
25	21-Jun	23.00	23.33	46.3	65	1,019	64	996	1.4030	0.1733
25	22-Jun	23.25	22.92	46.2	45	1,064	42	1,038	0.9747	0.1809
26	23-Jun	23.00	23.00	46.0	114	1,178	114	1,152	2.4783	0.2003
26	24-Jun	22.25	23.00	45.3	148	1,326	145	1,297	3.2707	0.2258
26	25-Jun	22.30	22.25	44.6	147	1,473	142	1,439	3.2997	0.2515
26	26-Jun	22.33	22.83	45.2	150	1,623	144	1,583	3.3215	0.2775
26	27-Jun	22.75	23.00	45.8	102	1,725	93	1,676	2.2295	0.2949
26	28-Jun	23.00	22.92	45.9	134	1,859	123	1,799	2.9181	0.3176

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Stat Week	Date	FISHING EFFORT FW1 Effort	FW11 Effort	Total Effort	SOCKEYE Total Catches Daily	Cum.	Tagged Daily	Cum.	Daily CPUE	Cumul. Prop. CPUE
26	29-Jun	22.67	23.33	46.0	92	1,951	88	1,887	2.0000	0.3332
27	30-Jun	22.58	22.42	45.0	153	2,104	147	2,034	3.4000	0.3598
27	1-Jul	22.75	22.42	45.2	136	2,240	129	2,163	3.0108	0.3832
27	2-Jul	22.92	23.25	46.2	108	2,348	104	2,267	2.3392	0.4015
27	3-Jul	22.75	22.92	45.7	156	2,504	150	2,417	3.4158	0.4282
27	4-Jul	23.17	23.42	46.6	83	2,587	76	2,493	1.7815	0.4421
27	5-Jul	22.58	22.92	45.5	95	2,682	90	2,583	2.0879	0.4583
27	6-Jul	23.25	23.42	46.7	57	2,739	50	2,633	1.2213	0.4679
28	7-Jul	22.42	23.00	45.4	76	2,815	70	2,703	1.6733	0.4809
28	8-Jul	22.83	22.75	45.6	129	2,944	117	2,820	2.8302	0.5030
28	9-Jul	21.30	23.08	44.4	137	3,081	134	2,954	3.0870	0.5271
28	10-Jul	21.58	22.17	43.8	173	3,254	164	3,118	3.9543	0.5579
28	11-Jul	22.30	22.75	45.1	95	3,349	84	3,202	2.1088	0.5744
28	12-Jul	22.67	23.33	46.0	70	3,419	65	3,267	1.5217	0.5863
28	13-Jul	23.25	23.58	46.8	54	3,473	47	3,314	1.1531	0.5953
29	14-Jul	21.08	23.33	44.4	62	3,535	59	3,373	1.3961	0.6062
29	15-Jul	21.92	20.83	42.8	333	3,868	299	3,672	7.7895	0.6669
29	16-Jul	22.25	22.25	44.5	184	4,052	168	3,840	4.1348	0.6992
29	17-Jul	22.50	22.67	45.2	116	4,168	105	3,945	2.5681	0.7192
29	18-Jul	23.17	22.08	45.3	126	4,294	115	4,060	2.7845	0.7410
29	19-Jul	22.67	22.33	45.0	110	4,404	99	4,159	2.4444	0.7600
29	20-Jul	22.92	22.67	45.6	92	4,496	85	4,244	2.0180	0.7758
30	21-Jul	23.17	22.67	45.8	68	4,564	62	4,306	1.4834	0.7874
30	22-Jul	23.17	22.75	45.9	64	4,628	58	4,364	1.3937	0.7982
30	23-Jul	22.67	22.50	45.2	116	4,744	108	4,472	2.5681	0.8183
30	24-Jul	22.33	23.08	45.4	87	4,831	78	4,550	1.9159	0.8332
30	25-Jul	23.25	23.58	46.8	35	4,866	26	4,576	0.7474	0.8390
30	26-Jul	23.25	23.33	46.6	39	4,905	32	4,608	0.8373	0.8456
30	27-Jul	23.25	23.50	46.8	13	4,918	12	4,620	0.2781	0.8478
31	28-Jul	23.00	23.25	46.3	38	4,956	31	4,651	0.8216	0.8542
31	29-Jul	22.58	23.58	46.2	35	4,991	32	4,683	0.7582	0.8601
31	30-Jul	23.25	23.00	46.3	42	5,033	36	4,719	0.9081	0.8672
31	31-Jul	23.25	23.42	46.7	48	5,081	43	4,762	1.0285	0.8752
31	1-Aug	23.33	23.33	46.7	56	5,137	48	4,810	1.2002	0.8846
31	2-Aug	23.25	23.42	46.7	59	5,196	53	4,863	1.2642	0.8944
31	3-Aug	22.42	23.17	45.6	64	5,260	54	4,917	1.4038	0.9054
32	4-Aug	22.75	23.08	45.8	72	5,332	67	4,984	1.5710	0.9176
32	5-Aug	23.00	23.08	46.1	74	5,406	61	5,045	1.6059	0.9302

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		FISHING EFFORT			SOCKEYE					
Stat		FWI	FWII	Total	Total Catches		Tagged		Daily	Cumul.
Week	Date	Effort	Effort	Effort	Daily	Cum.	Daily	Cum.	CPUE	Prop. CPUE
32	6-Aug	22.75	23.42	46.2	51	5,457	47	5,092	1.1046	0.9388
32	7-Aug	23.17	23.75	46.9	20	5,477	19	5,111	0.4263	0.9421
32	8-Aug	23.00	23.58	46.6	25	5,502	19	5,130	0.5367	0.9463
32	9-Aug	23.15	23.00	46.2	10	5,512	8	5,138	0.2167	0.9480
32	10-Aug	23.35	23.50	46.9	16	5,528	13	5,151	0.3415	0.9506
33	11-Aug	22.92	23.75	46.7	21	5,549	19	5,170	0.4500	0.9542
33	12-Aug	23.25	23.75	47.0	6	5,555	5	5,175	0.1277	0.9551
33	13-Aug	15.75	15.67	31.4	1	5,556	1	5,176	0.0318	0.9554
33	14-Aug	13.92	13.67	27.6	2	5,558	2	5,178	0.0725	0.9560
33	15-Aug	23.50	23.67	47.2	10	5,568	9	5,187	0.2120	0.9576
33	16-Aug	8.75	9.25	18.0	3	5,571	3	5,190	0.1667	0.9589
33	17-Aug			0.0		5,571		5,190	0.0000	0.9589
34	18-Aug	7.33	13.00	20.3	0	5,571	0	5,190	0.0000	0.9589
34	19-Aug	22.83	23.00	45.8	29	5,600	23	5,213	0.6328	0.9639
34	20-Aug	23.25	23.00	46.3	31	5,631	21	5,234	0.6703	0.9691
34	21-Aug	23.42	23.58	47.0	19	5,650	17	5,251	0.4043	0.9722
34	22-Aug	22.42	23.00	45.4	30	5,680	21	5,272	0.6605	0.9774
34	23-Aug	22.50	23.50	46.0	10	5,690	10	5,282	0.2174	0.9791
34	24-Aug	23.17	23.58	46.8	5	5,695	5	5,287	0.1070	0.9799
35	25-Aug	21.67	23.50	45.2	8	5,703	8	5,295	0.1771	0.9813
35	26-Aug	22.42	23.67	46.1	8	5,711	6	5,301	0.1736	0.9827
35	27-Aug	22.75	23.50	46.3	10	5,721	10	5,311	0.2162	0.9843
35	28-Aug	23.42	23.25	46.7	11	5,732	10	5,321	0.2357	0.9862
35	29-Aug	19.92	23.25	43.2	4	5,736	4	5,325	0.0927	0.9869
35	30-Aug	22.92	22.92	45.8	20	5,756	17	5,342	0.4363	0.9903
35	31-Aug	22.83	22.58	45.4	9	5,765	6	5,348	0.1982	0.9919
36	1-Sep	22.50	23.33	45.8	6	5,771	4	5,352	0.1309	0.9929
36	2-Sep	23.33	22.50	45.8	6	5,777	4	5,356	0.1309	0.9939
36	3-Sep	22.42	22.50	44.9	9	5,786	6	5,362	0.2004	0.9955
36	4-Sep	22.92	23.33	46.3	9	5,795	5	5,367	0.1946	0.9970
36	5-Sep	21.50	23.08	44.6	2	5,797	2	5,369	0.0449	0.9973
36	6-Sep	22.83	23.25	46.1	5	5,802	3	5,372	0.1085	0.9982
36	7-Sep	23.00	23.50	46.5	3	5,805	2	5,374	0.0645	0.9987
37	8-Sep	23.17	23.50	46.7	1	5,806	0	5,374	0.0214	0.9989
37	9-Sep	23.00	23.67	46.7	3	5,809	2	5,376	0.0643	0.9994
37	10-Sep	23.58	23.67	47.3	1	5,810	1	5,377	0.0212	0.9995
37	11-Sep	23.75	23.58	47.3	0	5,810	0	5,377	0.0000	0.9995
37	12-Sep	8.58	23.75	32.3	2	5,812	0	5,377	0.0619	1.0000
37	13-Sep		23.67	23.7	0	5,812	0	5,377	0.0000	1.0000
37	14-Sep		9.75	9.8	0	5,812	0	5,377	0.0000	1.0000

Appendix C.1. Catches, number tagged, and CPUE of pink and chum salmon in the fish wheels at Canyon Island, 1998.

		FISHING EFFORT			PINK				CHUM			
Stat		FWI	FWII	Total	Total Catches		Daily	Cumul.	Total Catches		Daily	Cumul.
Week	Date	Effort	Effort	Effort	Daily	Cum.	CPUE	Prop. CPUE	Daily	Cum.	CPUE	Prop. CPUE
24	12-Jun	23.25	23.16	46.41	0	0	0.0000	0.0000	0	0	0.0000	0.0000
24	13-Jun	23.08	22.50	45.58	0	0	0.0000	0.0000	0	0	0.0000	0.0000
25	14-Jun	22.92	23.25	46.17	0	0	0.0000	0.0000	0	0	0.0000	0.0000
25	15-Jun	23.42	22.67	46.09	0	0	0.0000	0.0000	0	0	0.0000	0.0000
25	16-Jun	22.67	23.25	45.92	0	0	0.0000	0.0000	0	0	0.0000	0.0000
25	17-Jun	23.08	22.67	45.75	0	0	0.0000	0.0000	0	0	0.0000	0.0000
25	18-Jun	23.16	22.42	45.58	0	0	0.0000	0.0000	0	0	0.0000	0.0000
25	19-Jun	22.92	22.75	45.67	0	0	0.0000	0.0000	0	0	0.0000	0.0000
25	20-Jun	22.50	21.58	44.08	0	0	0.0000	0.0000	0	0	0.0000	0.0000
26	21-Jun	23.00	22.50	45.50	0	0	0.0000	0.0000	0	0	0.0000	0.0000
26	22-Jun	23.75	22.25	46.00	1	1	0.0217	0.0000	0	0	0.0000	0.0000
26	23-Jun	23.00	22.42	45.42	1	2	0.0220	0.0001	0	0	0.0000	0.0000
26	24-Jun	23.41	23.25	46.66	0	2	0.0000	0.0001	0	0	0.0000	0.0000
26	25-Jun	23.50	23.00	46.50	2	4	0.0430	0.0002	0	0	0.0000	0.0000
26	26-Jun	23.08	22.75	45.83	0	4	0.0000	0.0002	0	0	0.0000	0.0000
26	27-Jun	22.83	22.92	45.75	0	4	0.0000	0.0002	0	0	0.0000	0.0000
27	28-Jun	22.16	22.83	44.99	17	21	0.3779	0.0008	0	0	0.0000	0.0000
27	29-Jun	22.58	21.58	44.16	39	60	0.8832	0.0024	0	0	0.0000	0.0000
27	30-Jun	22.33	21.92	44.25	56	116	1.2655	0.0046	0	0	0.0000	0.0000
27	1-Jul	22.92	18.58	41.50	14	130	0.3373	0.0052	0	0	0.0000	0.0000
27	2-Jul	23.42	23.25	46.67	35	165	0.7499	0.0066	0	0	0.0000	0.0000
27	3-Jul	23.75	23.33	47.08	32	197	0.6797	0.0078	0	0	0.0000	0.0000
27	4-Jul	23.75	22.83	46.58	48	245	1.0305	0.0096	0	0	0.0000	0.0000
28	5-Jul	17.67	22.83	40.50	46	291	1.1358	0.0116	0	0	0.0000	0.0000
28	6-Jul	0.00	21.92	21.92	139	430	6.3412	0.0229	0	0	0.0000	0.0000
28	7-Jul	0.00	22.25	22.25	123	553	5.5281	0.0328	0	0	0.0000	0.0000
28	8-Jul	9.67	23.00	32.67	93	646	2.8466	0.0378	0	0	0.0000	0.0000
28	9-Jul	23.16	22.92	46.08	282	928	6.1198	0.0487	0	0	0.0000	0.0000
28	10-Jul	23.16	23.50	46.66	144	1,072	3.0862	0.0542	0	0	0.0000	0.0000
28	11-Jul	23.16	23.25	46.41	142	1,214	3.0597	0.0597	0	0	0.0000	0.0000
29	12-Jul	23.08	23.16	46.24	191	1,405	4.1306	0.0670	0	0	0.0000	0.0000
29	13-Jul	22.67	21.75	44.42	318	1,723	7.1589	0.0797	0	0	0.0000	0.0000
29	14-Jul	22.75	22.25	45.00	304	2,027	6.7556	0.0918	0	0	0.0000	0.0000
29	15-Jul	22.58	22.33	44.91	522	2,549	11.6232	0.1124	0	0	0.0000	0.0000
29	16-Jul	22.50	22.75	45.25	758	3,307	16.7514	0.1422	0	0	0.0000	0.0000
29	17-Jul	22.58	22.33	44.91	1076	4,383	23.9590	0.1849	0	0	0.0000	0.0000
29	18-Jul	22.58	22.92	45.50	1054	5,437	23.1648	0.2261	0	0	0.0000	0.0000
30	19-Jul	22.75	13.25	36.00	1110	6,547	30.8333	0.2809	0	0	0.0000	0.0000

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		FISHING EFFORT			PINK				CHUM			
Stat		FWI	FWII	Total	Total Catches		Daily	Cumul.	Total Catches		Daily	Cumul.
Week	Date	Effort	Effort	Effort	Daily	Cum	CPUE	Prop. CPUE	Daily	Cum	CPUE	Prop. CPUE
30	20-Jul	22.42	21.42	43.84	1506	8,053	34.3522	0.3421	0	0	0.0000	0.0000
30	21-Jul	22.08	21.83	43.91	1336	9,389	30.4259	0.3962	0	0	0.0000	0.0000
30	22-Jul	22.00	22.33	44.33	1773	11,162	39.9955	0.4674	0	0	0.0000	0.0000
30	23-Jul	22.00	21.83	43.83	1492	12,654	34.0406	0.5279	0	0	0.0000	0.0000
30	24-Jul	22.83	22.50	45.33	1631	14,285	35.9806	0.5919	0	0	0.0000	0.0000
30	25-Jul	22.92	22.25	45.17	807	15,092	17.8658	0.6237	0	0	0.0000	0.0000
31	26-Jul	22.67	22.16	44.83	1111	16,203	24.7825	0.6678	0	0	0.0000	0.0000
31	27-Jul	22.50	21.33	43.83	1042	17,245	23.7737	0.7101	0	0	0.0000	0.0000
31	28-Jul	22.32	22.00	44.32	1303	18,548	29.3998	0.7624	0	0	0.0000	0.0000
31	29-Jul	23.08	22.67	45.75	1129	19,677	24.6776	0.8063	0	0	0.0000	0.0000
31	30-Jul	23.08	22.67	45.75	658	20,335	14.3825	0.8319	1	1	0.0219	0.0061
31	31-Jul	14.92	14.67	29.59	118	20,453	3.9878	0.8390	0	1	0.0000	0.0061
31	1-Aug	0.00	0.00	0.00	0	20,453	0.0000	0.8390	0	1	0.0000	0.0061
32	2-Aug	0.00	0.00	0.00	0	20,453	0.0000	0.8390	0	1	0.0000	0.0061
32	3-Aug	8.00	0.00	8.00	0	20,453	0.0000	0.8390	0	1	0.0000	0.0061
32	4-Aug	19.42	0.00	19.42	614	21,067	31.6169	0.8953	0	1	0.0000	0.0061
32	5-Aug	20.92	10.00	30.92	901	21,968	29.1397	0.9471	0	1	0.0000	0.0061
32	6-Aug	22.75	22.75	45.50	647	22,615	14.2198	0.9724	1	2	0.0220	0.0122
32	7-Aug	22.75	23.16	45.91	302	22,917	6.5781	0.9841	1	3	0.0218	0.0183
32	8-Aug	22.25	22.50	44.75	94	23,011	2.1006	0.9878	0	3	0.0000	0.0183
33	9-Aug	22.58	22.50	45.08	53	23,064	1.1757	0.9899	0	3	0.0000	0.0183
33	10-Aug	22.67	22.83	45.50	42	23,106	0.9231	0.9916	0	3	0.0000	0.0183
33	11-Aug	22.83	23.08	45.91	35	23,141	0.7624	0.9929	0	3	0.0000	0.0183
33	12-Aug	22.83	23.16	45.99	15	23,156	0.3262	0.9935	0	3	0.0000	0.0183
33	13-Aug	23.16	23.08	46.24	25	23,181	0.5407	0.9945	1	4	0.0216	0.0243
33	14-Aug	23.16	23.33	46.49	18	23,199	0.3872	0.9952	2	6	0.0430	0.0363
33	15-Aug	22.42	22.58	45.00	26	23,225	0.5778	0.9962	1	7	0.0222	0.0425
34	16-Aug	22.33	22.08	44.41	38	23,263	0.8557	0.9977	1	8	0.0225	0.0487
34	17-Aug	22.00	22.42	44.42	9	23,272	0.2026	0.9981	2	10	0.0450	0.0613
34	18-Aug	22.00	22.42	44.42	16	23,288	0.3602	0.9987	1	11	0.0225	0.0675
34	19-Aug	22.33	23.08	45.41	15	23,303	0.3303	0.9993	1	12	0.0220	0.0737
34	20-Aug	23.00	22.83	45.83	11	23,314	0.2400	0.9997	3	15	0.0655	0.0919
34	21-Aug	23.00	22.92	45.92	2	23,316	0.0436	0.9998	3	18	0.0653	0.1101
34	22-Aug	22.83	23.00	45.83	2	23,318	0.0436	0.9999	0	18	0.0000	0.1101
35	23-Aug	23.50	23.50	47.00	0	23,318	0.0000	0.9999	3	21	0.0638	0.1279
35	24-Aug	23.33	23.08	46.41	1	23,319	0.0215	0.9999	3	24	0.0646	0.1459
35	25-Aug	23.08	22.75	45.83	0	23,319	0.0000	0.9999	3	27	0.0655	0.1641
35	26-Aug	23.25	23.42	46.67	0	23,319	0.0000	0.9999	2	29	0.0429	0.1760

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		FISHING EFFORT			PINK				CHUM			
Stat		FWI	FWII	Total	Total Catches		Daily	Cumul.	Total Catches		Daily	Cumul.
Week	Date	Effort	Effort	Effort	Daily	Cum.	CPUE	Prop. CPUE	Daily	Cum.	CPUE	Prop. CPUE
35	27-Aug	22.75	23.25	46.00	0	23,319	0.0000	0.9999	2	31	0.0435	0.1881
35	28-Aug	23.50	23.42	46.92	0	23,319	0.0000	0.9999	2	33	0.0426	0.2000
35	29-Aug	23.00	23.42	46.42	0	23,319	0.0000	0.9999	2	35	0.0431	0.2120
36	30-Aug	22.83	23.50	46.33	1	23,320	0.0216	1.0000	3	38	0.0648	0.2300
36	31-Aug	23.42	23.33	46.75	0	23,320	0.0000	1.0000	5	43	0.1070	0.2598
36	1-Sep	23.33	23.75	47.08	0	23,320	0.0000	1.0000	3	46	0.0637	0.2776
36	2-Sep	22.00	22.92	44.92	0	23,320	0.0000	1.0000	11	57	0.2449	0.3458
36	3-Sep	26.16	23.25	49.41	0	23,320	0.0000	1.0000	10	67	0.2024	0.4021
36	4-Sep	23.50	23.58	47.08	0	23,320	0.0000	1.0000	10	77	0.2124	0.4613
36	5-Sep	23.42	23.67	47.09	0	23,320	0.0000	1.0000	2	79	0.0425	0.4731
37	6-Sep	23.58	23.83	47.41	0	23,320	0.0000	1.0000	3	82	0.0633	0.4907
37	7-Sep	23.75	23.47	47.22	0	23,320	0.0000	1.0000	11	93	0.2330	0.5556
37	8-Sep	23.42	23.25	46.67	1	23,321	0.0214	1.0000	9	102	0.1928	0.6093
37	9-Sep	23.16	22.83	45.99	0	23,321	0.0000	1.0000	19	121	0.4131	0.7244
37	10-Sep	23.42	22.83	46.25	0	23,321	0.0000	1.0000	5	126	0.1081	0.7545
37	11-Sep	23.75	23.85	47.60	0	23,321	0.0000	1.0000	5	131	0.1050	0.7837
37	12-Sep	23.00	23.25	46.25	0	23,321	0.0000	1.0000	9	140	0.1946	0.8379
38	13-Sep	23.25	23.25	46.50	0	23,321	0.0000	1.0000	18	158	0.3871	0.9457
38	14-Sep	23.83	23.42	47.25	0	23,321	0.0000	1.0000	8	166	0.1693	0.9929
38	15-Sep	17.15	21.83	38.98	0	23,321	0.0000	1.0000	1	167	0.0257	1.0000
38	16-Sep	0.00	0.00	0.00	0	23,321	0.0000	1.0000	0	167	0.0000	1.0000

Appendix C.2. Catches, number tagged, and CPUE of pink and chum salmon in the fish wheels at Canyon Island, 1999.

		FISHING EFFORT			PINK				CHUM			
Stat		FWI	FWII	Total	Total Catches		Daily	Cumul.	Total Catches		Daily	Cumul.
Week	Date	Effort	Effort	Effort	Daily	Cum.	CPUE	Prop. CPUE	Daily	Cum.	CPUE	Prop. CPUE
26	24-Jun	22.75	22.92	45.7	0	0	0.0000	0.0000	0	0	0.0000	0.0000
26	25-Jun	23.42	23.53	47.0	0	0	0.0000	0.0000	0	0	0.0000	0.0000
26	26-Jun	23.33	22.92	46.3	1	1	0.0216	0.0000	0	0	0.0000	0.0000
27	27-Jun	23.00	22.16	45.2	0	1	0.0000	0.0000	0	0	0.0000	0.0000
27	28-Jun	23.16	22.16	45.3	0	1	0.0000	0.0002	0	0	0.0000	0.0000
27	29-Jun	22.42	23.16	45.6	4	5	0.0878	0.0003	0	0	0.0000	0.0000
27	30-Jun	23.08	22.83	45.9	3	8	0.0653	0.0008	0	0	0.0000	0.0000
27	1-Jul	23.16	22.75	45.9	11	19	0.2396	0.0012	0	0	0.0000	0.0000
27	2-Jul	22.75	22.25	45.0	9	28	0.2000	0.0025	0	0	0.0000	0.0000
27	3-Jul	21.42	21.42	42.8	30	58	0.7003	0.0044	0	0	0.0000	0.0000
28	4-Jul	22.58	20.58	43.2	42	100	0.9731	0.0072	0	0	0.0000	0.0000
28	5-Jul	22.67	20.92	43.6	64	164	1.4682	0.0129	0	0	0.0000	0.0000
28	6-Jul	22.16	22.08	44.2	130	294	2.9385	0.0266	0	0	0.0000	0.0000
28	7-Jul	22.00	21.50	43.5	312	606	7.1724	0.0377	1	1	0.0230	0.0002
28	8-Jul	22.33	23.08	45.4	262	868	5.7697	0.0491	0	1	0.0220	0.0004
28	9-Jul	23.25	22.33	45.6	270	1,138	5.9237	0.0559	0	1	0.0219	0.0006
28	10-Jul	23.50	23.58	47.1	165	1,303	3.5047	0.0619	0	1	0.0212	0.0008
29	11-Jul	23.33	23.33	46.7	146	1,449	3.1290	0.0698	0	1	0.0214	0.0009
29	12-Jul	23.00	23.16	46.2	191	1,640	4.1378	0.0805	0	1	0.0217	0.0011
29	13-Jul	23.42	22.58	46.0	255	1,895	5.5435	0.0979	0	1	0.0217	0.0013
29	14-Jul	22.92	22.75	45.7	415	2,310	9.0869	0.1269	0	1	0.0219	0.0015
29	15-Jul	22.83	22.58	45.4	685	2,995	15.0848	0.1526	0	1	0.0220	0.0017
29	16-Jul	22.83	22.75	45.6	609	3,604	13.3611	0.1853	0	1	0.0219	0.0019
29	17-Jul	22.25	22.16	44.4	755	4,359	17.0007	0.2408	0	1	0.0225	0.0021
30	18-Jul	22.08	21.42	43.5	1257	5,616	28.8966	0.3215	0	1	0.0230	0.0023
30	19-Jul	22.16	21.92	44.1	1852	7,468	42.0145	0.3832	0	1	0.0227	0.0025
30	20-Jul	22.50	22.67	45.2	1449	8,917	32.0788	0.4186	0	1	0.0221	0.0027
30	21-Jul	22.92	23.25	46.2	852	9,769	18.4535	0.4414	0	1	0.0217	0.0028
30	22-Jul	23.08	23.25	46.3	550	10,319	11.8714	0.4807	0	1	0.0216	0.0030
30	23-Jul	21.92	22.92	44.8	916	11,235	20.4282	0.5466	0	1	0.0223	0.0032
30	24-Jul	22.67	22.75	45.4	1558	12,793	34.3021	0.5829	0	1	0.0220	0.0034
31	25-Jul	23.00	22.92	45.9	867	13,660	18.8807	0.6252	1	2	0.0436	0.0038
31	26-Jul	21.92	21.92	43.8	966	14,626	22.0347	0.6588	0	2	0.0456	0.0042
31	27-Jul	22.50	22.83	45.3	793	15,419	17.4939	0.6953	3	5	0.1103	0.0051
31	28-Jul	22.33	22.42	44.8	850	16,269	18.9944	0.7603	0	5	0.1117	0.0061
31	29-Jul	22.42	22.16	44.6	1507	17,776	33.8044	0.8226	1	6	0.1346	0.0072
31	30-Jul	22.42	22.92	45.3	1470	19,246	32.4217	0.8605	0	6	0.1323	0.0084
31	31-Jul	22.92	22.33	45.3	892	20,138	19.7127	0.9046	0	6	0.1326	0.0095

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Appendix C.2. (Page 2 of 3).

		FISHING EFFORT			PINK				CHUM			
Stat		FWI	FWII	Total	Total Catches		Daily	Cumul.	Total Catches		Daily	Cumul.
Week	Date	Effort	Effort	Effort	Daily	Cum	CPUE	Prop. CPUE	Daily	Cum	CPUE	Prop. CPUE
32	1-Aug	22.58	22.67	45.3	1038	21,176	22.9392	0.9242	0	6	0.1326	0.0107
32	2-Aug	22.75	22.50	45.3	463	21,639	10.2320	0.9373	2	8	0.1768	0.0122
32	3-Aug	22.58	22.92	45.5	310	21,949	6.8132	0.9478	0	8	0.1758	0.0137
32	4-Aug	22.83	22.67	45.5	248	22,197	5.4505	0.9566	3	11	0.2418	0.0158
32	5-Aug	23.00	23.33	46.3	213	22,410	4.5975	0.9632	1	12	0.2590	0.0180
32	6-Aug	22.25	23.42	45.7	157	22,567	3.4377	0.9685	0	12	0.2628	0.0202
32	7-Aug	23.42	23.25	46.7	129	22,696	2.7641	0.9729	0	12	0.2571	0.0225
33	8-Aug	23.16	23.33	46.5	105	22,801	2.2586	0.9771	0	12	0.2581	0.0247
33	9-Aug	23.25	23.16	46.4	101	22,902	2.1763	0.9830	0	12	0.2586	0.0269
33	10-Aug	22.92	23.33	46.3	143	23,045	3.0919	0.9883	0	12	0.2595	0.0291
33	11-Aug	22.75	23.58	46.3	128	23,173	2.7628	0.9920	0	12	0.2590	0.0313
33	12-Aug	22.50	23.42	45.9	88	23,261	1.9164	0.9938	0	12	0.2613	0.0336
33	13-Aug	22.42	23.67	46.1	43	23,304	0.9330	0.9946	3	15	0.3255	0.0364
33	14-Aug	23.25	23.33	46.6	20	23,324	0.4294	0.9954	0	15	0.3220	0.0392
34	15-Aug	22.75	21.42	44.2	19	23,343	0.4302	0.9966	0	15	0.3396	0.0421
34	16-Aug	23.16	23.42	46.6	29	23,372	0.6226	0.9972	1	16	0.3435	0.0450
34	17-Aug	23.25	23.42	46.7	14	23,386	0.3000	0.9977	0	16	0.3428	0.0480
34	18-Aug	11.50	13.25	24.8	6	23,392	0.2424	0.9977	0	16	0.6465	0.0535
34	19-Aug	0.00	0.00	0.0		23,392	0.0000	0.9977		16	0.0000	0.0535
34	20-Aug	0.00	0.00	0.0		23,392	0.0000	0.9977		16	0.0000	0.0535
34	21-Aug	10.50	9.33	19.8	0	23,392	0.0000	0.9982	0	16	0.8069	0.0605
35	22-Aug	22.92	23.33	46.3	12	23,404	0.2595	0.9983	4	20	0.4324	0.0642
35	23-Aug	23.33	22.67	46.0	3	23,407	0.0652	0.9987	2	22	0.4783	0.0683
35	24-Aug	23.25	23.33	46.6	9	23,416	0.1932	0.9989	7	29	0.6226	0.0736
35	25-Aug	23.33	23.58	46.9	5	23,421	0.1066	0.9989	1	30	0.6395	0.0791
35	26-Aug	23.42	23.42	46.8	1	23,422	0.0213	0.9990	1	31	0.6618	0.0848
35	27-Aug	23.42	23.50	46.9	1	23,423	0.0213	0.9990	3	34	0.7246	0.0910
35	28-Aug	23.33	23.50	46.8	2	23,425	0.0427	0.9993	6	40	0.8542	0.0984
36	29-Aug	23.00	23.50	46.5	6	23,431	0.1290	0.9993	16	56	1.2043	0.1087
36	30-Aug	22.92	23.33	46.3	1	23,432	0.0216	0.9994	10	66	1.4270	0.1210
36	31-Aug	23.33	23.62	47.0	1	23,433	0.0213	0.9994	6	72	1.5335	0.1342
36	1-Sep	23.75	23.42	47.2	1	23,434	0.0212	0.9995	0	72	1.5264	0.1473
36	2-Sep	23.58	23.67	47.3	1	23,435	0.0212	0.9995	3	75	1.5873	0.1609
36	3-Sep	23.42	23.33	46.8	1	23,436	0.0214	0.9995	3	78	1.6684	0.1752
36	4-Sep	23.00	23.33	46.3	0	23,436	0.0000	0.9996	3	81	1.7483	0.1903
37	5-Sep	22.83	23.16	46.0	3	23,439	0.0652	0.9997	13	94	2.0439	0.2078
37	6-Sep	23.25	23.42	46.7	1	23,440	0.0214	0.9997	14	108	2.3141	0.2277
37	7-Sep	23.33	23.25	46.6	1	23,441	0.0215	0.9997	5	113	2.4259	0.2485

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Appendix C.2. (Page 3 of 3).

		FISHING EFFORT			PINK				CHUM			
Stat		FWI	FWII	Total	Total Catches		Daily	Cumul.	Total Catches		Daily	Cumul.
Week	Date	Effort	Effort	Effort	Daily	Cum	CPUE	Prop. CPUE	Daily	Cum	CPUE	Prop. CPUE
37	8-Sep	23.58	23.83	47.4	0	23,441	0.0000	0.9998	1	114	2.4046	0.2692
37	9-Sep	21.75	23.16	44.9	2	23,443	0.0445	0.9999	4	118	2.6275	0.2918
37	10-Sep	23.58	22.33	45.9	3	23,446	0.0653	1.0000	2	120	2.6138	0.3142
37	11-Sep	23.83	22.50	46.3	1	23,447	0.0216	1.0000	1	121	2.6117	0.3367
38	12-Sep	23.83	22.92	46.8	1	23,448	0.0214	1.0000	3	124	2.6524	0.3595
38	13-Sep	23.83	23.00	46.8	0	23,448	0.0000	1.0000	3	127	2.7119	0.3828
38	14-Sep	24.00	23.00	47.0	0	23,448	0.0000	1.0000	6	133	2.8298	0.4071
38	15-Sep	23.92	16.00	39.9	0	23,448	0.0000	1.0000	0	133	3.3317	0.4357
38	16-Sep	23.58	16.00	39.6	0	23,448	0.0000	1.0000	1	134	3.3855	0.4648
38	17-Sep	23.75	15.08	38.8	0	23,448	0.0000	1.0000	4	138	3.5540	0.4953
38	18-Sep	23.67	16.75	40.4	0	23,448	0.0000	1.0000	4	142	3.5131	0.5255
39	19-Sep	22.33	23.33	45.7	0	23,448	0.0000	1.0000	4	146	3.1975	0.5530
39	20-Sep	23.16	23.67	46.8	0	23,448	0.0000	1.0000	1	147	3.1390	0.5799
39	21-Sep	22.83	23.42	46.3	0	23,448	0.0000	1.0000	3	150	3.2432	0.6078
39	22-Sep	23.33	23.58	46.9	0	23,448	0.0000	1.0000	5	155	3.3042	0.6362
39	23-Sep	23.50	23.92	47.4	0	23,448	0.0000	1.0000	1	156	3.2898	0.6644
39	24-Sep	23.50	23.92	47.4	0	23,448	0.0000	1.0000	1	157	3.3108	0.6929
39	25-Sep	23.00	22.25	45.3	0	23,448	0.0000	1.0000	3	160	3.5359	0.7233
40	26-Sep	23.25		23.3	0	23,448	0.0000	1.0000	3	163	7.0108	0.7835
40	27-Sep	23.50		23.5	0	23,448	0.0000	1.0000	1	164	6.9787	0.8434
40	28-Sep	9.00		9.0	0	23,448	0.0000	1.0000	0	164	18.2222	1.0000

Appendix C.3. Catches, number tagged, and CPUE of pink and chum salmon in the fish wheels at Canyon Island, 2000.

		FISHING EFFORT			PINK				CHUM			
Stat		FWI	FWII	Total	Total Catches		Daily	Cumul.	Total Catches		Daily	Cumul.
Week	Date	Effort	Effort	Effort	Daily	Cum.	CPUE	Prop. CPUE	Daily	Cum.	CPUE	Prop. CPUE
26	24-Jun	22.08	22.58	44.7	0	0	0.0000	0.0000	0	0	0.0000	0.0000
27	25-Jun	20.83	23.08	43.9	5	5	0.1139	0.0008	0	0	0.0000	0.0000
27	26-Jun	21.50	22.83	44.3	0	5	0.0000	0.0008	0	0	0.0000	0.0000
27	27-Jun	21.75	22.83	44.6	0	5	0.0000	0.0008	0	0	0.0000	0.0000
27	28-Jun	22.15	23.00	45.2	0	5	0.0000	0.0008	0	0	0.0000	0.0000
27	29-Jun	22.92	23.25	46.2	1	6	0.0217	0.0009	0	0	0.0000	0.0000
27	30-Jun	22.92	23.25	46.2	1	7	0.0217	0.0011	0	0	0.0000	0.0000
27	1-Jul	23.00	23.67	46.7	1	8	0.0214	0.0012	0	0	0.0000	0.0000
28	2-Jul	22.50	23.58	46.1	7	15	0.1519	0.0023	0	0	0.0000	0.0000
28	3-Jul	23.00	23.08	46.1	8	23	0.1736	0.0035	0	0	0.0000	0.0000
28	4-Jul	22.58	23.08	45.7	7	30	0.1533	0.0045	0	0	0.0000	0.0000
28	5-Jul	22.58	23.58	46.2	4	34	0.0867	0.0051	0	0	0.0000	0.0000
28	6-Jul	22.00	23.08	45.1	18	52	0.3993	0.0079	0	0	0.0000	0.0000
28	7-Jul	23.00	23.00	46.0	24	76	0.5217	0.0115	0	0	0.0000	0.0000
28	8-Jul	22.58	22.92	45.5	49	125	1.0769	0.0189	0	0	0.0000	0.0000
29	9-Jul	22.67	23.67	46.3	59	184	1.2732	0.0276	0	0	0.0000	0.0000
29	10-Jul	22.17	22.67	44.8	73	257	1.6280	0.0388	0	0	0.0000	0.0000
29	11-Jul	22.75	23.33	46.1	139	396	3.0165	0.0596	2	2	0.0434	0.0046
29	12-Jul	23.00	23.08	46.1	185	581	4.0148	0.0872	0	2	0.0000	0.0046
29	13-Jul	22.50	23.00	45.5	252	833	5.5385	0.1253	1	3	0.0220	0.0070
29	14-Jul	23.08	23.08	46.2	168	1,001	3.6395	0.1504	0	3	0.0000	0.0070
29	15-Jul	23.17	23.08	46.3	199	1,200	4.3027	0.1800	0	3	0.0000	0.0070
30	16-Jul	22.92	23.42	46.3	100	1,300	2.1580	0.1948	2	5	0.0432	0.0116
30	17-Jul	22.58	23.08	45.7	164	1,464	3.5918	0.2196	0	5	0.0000	0.0116
30	18-Jul	22.75	22.83	45.6	231	1,695	5.0680	0.2544	1	6	0.0219	0.0140
30	19-Jul	22.92	22.92	45.8	262	1,957	5.7155	0.2938	0	6	0.0000	0.0140
30	20-Jul	22.92	22.92	45.8	231	2,188	5.0393	0.3284	0	6	0.0000	0.0140
30	21-Jul	22.83	22.00	44.8	387	2,575	8.6326	0.3878	2	8	0.0446	0.0187
30	22-Jul	22.08	22.67	44.8	772	3,347	17.2514	0.5066	1	9	0.0223	0.0211
31	23-Jul	22.83	22.75	45.6	139	3,486	3.0496	0.5275	0	9	0.0000	0.0211
31	24-Jul	14.17	14.33	28.5	3	3,489	0.1053	0.5283	0	9	0.0000	0.0211
31	25-Jul			0.0		3,489	0.0000	0.5283		9	0.0000	0.0211
31	26-Jul			0.0		3,489	0.0000	0.5283		9	0.0000	0.0211
31	27-Jul	15.17	13.33	28.5	53	3,542	1.8596	0.5411	0	9	0.0000	0.0211
31	28-Jul	22.50	23.17	45.7	496	4,038	10.8605	0.6158	0	9	0.0000	0.0211
31	29-Jul	22.50	22.83	45.3	266	4,304	5.8681	0.6562	0	9	0.0000	0.0211
32	30-Jul	22.50	22.92	45.4	386	4,690	8.4985	0.7147	1	10	0.0220	0.0235
32	31-Jul	22.33	22.40	44.7	259	4,949	5.7903	0.7545	0	10	0.0000	0.0235

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Appendix C.3. (Page 2 of 3).

		FISHING EFFORT			PINK				CHUM			
Stat		FWI	FWII	Total	Total Catches		Daily	Cumul.	Total Catches		Daily	Cumul.
Week	Date	Effort	Effort	Effort	Daily	Cum	CPUE	Prop. CPUE	Daily	Cum	CPUE	Prop. CPUE
32	1-Aug	22.00	21.92	43.9	247	5,196	5.6239	0.7932	0	10	0.0000	0.0235
32	2-Aug	20.75	20.92	41.7	325	5,521	7.7994	0.8469	1	11	0.0240	0.0261
32	3-Aug	22.92	22.67	45.6	241	5,762	5.2862	0.8833	1	12	0.0219	0.0284
32	4-Aug	22.83	23.50	46.3	98	5,860	2.1153	0.8978	0	12	0.0000	0.0284
32	5-Aug	22.33	22.25	44.6	134	5,994	3.0058	0.9185	3	15	0.0673	0.0356
33	6-Aug	22.58	22.75	45.3	114	6,108	2.5149	0.9358	4	19	0.0882	0.0451
33	7-Aug	22.75	22.08	44.8	157	6,265	3.5021	0.9599	3	22	0.0669	0.0522
33	8-Aug	22.08	22.33	44.4	68	6,333	1.5312	0.9704	2	24	0.0450	0.0570
33	9-Aug	22.58	22.83	45.4	60	6,393	1.3213	0.9795	9	33	0.1982	0.0783
33	10-Aug	22.42	22.83	45.3	27	6,420	0.5967	0.9836	4	37	0.0884	0.0877
33	11-Aug	22.83	23.25	46.1	20	6,440	0.4340	0.9866	5	42	0.1085	0.0993
33	12-Aug	22.33	23.25	45.6	25	6,465	0.5485	0.9904	7	49	0.1536	0.1158
34	13-Aug	22.58	23.00	45.6	19	6,484	0.4168	0.9933	7	56	0.1536	0.1322
34	14-Aug	23.00	22.75	45.8	15	6,499	0.3279	0.9955	14	70	0.3060	0.1650
34	15-Aug	23.42	22.92	46.3	6	6,505	0.1295	0.9964	4	74	0.0863	0.1742
34	16-Aug	22.92	23.33	46.3	6	6,511	0.1297	0.9973	10	84	0.2162	0.1973
34	17-Aug	23.17	23.33	46.5	2	6,513	0.0430	0.9976	1	85	0.0215	0.1996
34	18-Aug	23.17	23.08	46.3	2	6,515	0.0432	0.9979	12	97	0.2595	0.2274
34	19-Aug	22.83	22.58	45.4	4	6,519	0.0881	0.9985	10	107	0.2202	0.2510
35	20-Aug	23.08	23.33	46.4	0	6,519	0.0000	0.9985	4	111	0.0862	0.2602
35	21-Aug	23.08	23.42	46.5	2	6,521	0.0430	0.9988	5	116	0.1075	0.2717
35	22-Aug	22.67	23.17	45.8	1	6,522	0.0218	0.9990	7	123	0.1527	0.2881
35	23-Aug	23.33	23.58	46.9	1	6,523	0.0213	0.9991	2	125	0.0426	0.2926
35	24-Aug	22.67	23.25	45.9	2	6,525	0.0436	0.9994	9	134	0.1960	0.3136
35	25-Aug	23.08	23.33	46.4	4	6,529	0.0862	1.0000	8	142	0.1724	0.3321
35	26-Aug	23.00	23.17	46.2	0	6,529	0.0000	1.0000	9	151	0.1949	0.3529
36	27-Aug	23.08	23.67	46.8	0	6,529	0.0000	1.0000	5	156	0.1070	0.3644
36	28-Aug	22.92	23.00	45.9	0	6,529	0.0000	1.0000	16	172	0.3484	0.4017
36	29-Aug	22.33	23.33	45.7	0	6,529	0.0000	1.0000	14	186	0.3066	0.4345
36	30-Aug	23.25	23.50	46.8	0	6,529	0.0000	1.0000	9	195	0.1925	0.4551
36	31-Aug	23.33	23.25	46.6	0	6,529	0.0000	1.0000	16	211	0.3435	0.4919
36	1-Sep	23.08	23.17	46.3	0	6,529	0.0000	1.0000	20	231	0.4324	0.5382
36	2-Sep	23.75	23.25	47.0	0	6,529	0.0000	1.0000	22	253	0.4681	0.5883
37	3-Sep		22.83	22.8	0	6,529	0.0000	1.0000	15	268	0.6570	0.6586
37	4-Sep	6.25	23.83	30.1	0	6,529	0.0000	1.0000	5	273	0.1662	0.6764
37	5-Sep	23.33	22.42	45.8	0	6,529	0.0000	1.0000	5	278	0.1093	0.6881
37	6-Sep	22.50	23.42	45.9	0	6,529	0.0000	1.0000	16	294	0.3484	0.7254
37	7-Sep	23.08	23.33	46.4	0	6,529	0.0000	1.0000	9	303	0.1939	0.7461

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		FISHING EFFORT			PINK				CHUM			
Stat		FWI	FWII	Total	Total Catches		Daily	Cumul.	Total Catches		Daily	Cumul.
Week	Date	Effort	Effort	Effort	Daily	Cum	CPUE	Prop. CPUE	Daily	Cum	CPUE	Prop. CPUE
37	8-Sep	22.75	23.50	46.3	0	6,529	0.0000	1.0000	23	326	0.4973	0.7994
37	9-Sep	22.92	23.42	46.3	0	6,529	0.0000	1.0000	14	340	0.3021	0.8317
38	10-Sep	15.75	23.67	39.4	0	6,529	0.0000	1.0000	6	346	0.1522	0.8480
38	11-Sep	7.00	23.42	30.4	0	6,529	0.0000	1.0000	3	349	0.0986	0.8586
38	12-Sep	23.50	23.42	46.9	0	6,529	0.0000	1.0000	0	349	0.0000	0.8586
38	13-Sep	23.42	23.42	46.8	0	6,529	0.0000	1.0000	6	355	0.1281	0.8723
38	14-Sep	23.58	23.67	47.3	0	6,529	0.0000	1.0000	6	361	0.1270	0.8859
38	15-Sep	23.17	23.75	46.9	0	6,529	0.0000	1.0000	8	369	0.1705	0.9041
38	16-Sep	23.25	23.67	46.9	0	6,529	0.0000	1.0000	5	374	0.1066	0.9155
39	17-Sep	23.17	23.75	46.9	0	6,529	0.0000	1.0000	4	378	0.0853	0.9246
39	18-Sep	23.25	23.83	47.1	0	6,529	0.0000	1.0000	2	380	0.0425	0.9292
39	19-Sep	22.58	23.75	46.3	0	6,529	0.0000	1.0000	4	384	0.0863	0.9384
39	20-Sep	22.92	23.50	46.4	0	6,529	0.0000	1.0000	11	395	0.2370	0.9638
39	21-Sep	22.83	23.83	46.7	0	6,529	0.0000	1.0000	4	399	0.0857	0.9730
39	22-Sep	23.33	23.67	47.0	0	6,529	0.0000	1.0000	9	408	0.1915	0.9935
39	23-Sep	23.58	9.17	32.8	0	6,529	0.0000	1.0000	2	410	0.0611	1.0000
40	24-Sep	23.50			0	6,529	0.0000	1.0000	2	412	0.0000	1.0000
40	25-Sep	23.58			0	6,529	0.0000	1.0000	0	412	0.0000	1.0000
40	26-Sep	23.67			0	6,529	0.0000	1.0000	7	419	0.0000	1.0000
40	27-Sep	23.50			0	6,529	0.0000	1.0000	2	421	0.0000	1.0000
40	28-Sep	22.83			0	6,529	0.0000	1.0000	1	422	0.0000	1.0000

Appendix C.4. Catches, number tagged, and CPUE of pink and chum salmon in the fish wheels at Canyon Island, 2001.

		FISHING EFFORT			PINK				CHUM			
Stat		FWI	FWII	Total	Total Catches		Daily	Cumul.	Total Catches		Daily	Cumul.
Week	Date	Effort	Effort	Effort	Daily	Cum.	CPUE	Prop. CPUE	Daily	Cum.	CPUE	Prop. CPUE
22	27-May	0.00	12.50	12.5	0	0	0.0000	0.0000	0	0	0.0000	0.0000
22	28-May	23.50	23.00	46.5	0	0	0.0000	0.0000	0	0	0.0000	0.0000
22	29-May	23.25	23.08	46.3	0	0	0.0000	0.0000	0	0	0.0000	0.0000
22	30-May	23.33	23.66	47.0	0	0	0.0000	0.0000	0	0	0.0000	0.0000
22	31-May	23.83	23.96	47.8	0	0	0.0000	0.0000	0	0	0.0000	0.0000
22	1-Jun	23.33	23.42	46.8	0	0	0.0000	0.0000	0	0	0.0000	0.0000
22	2-Jun	23.60	23.75	47.4	0	0	0.0000	0.0000	0	0	0.0000	0.0000
23	3-Jun	23.78	23.83	47.6	0	0	0.0000	0.0000	0	0	0.0000	0.0000
23	4-Jun	23.25	23.42	46.7	0	0	0.0000	0.0000	0	0	0.0000	0.0000
23	5-Jun	23.50	23.50	47.0	0	0	0.0000	0.0000	0	0	0.0000	0.0000
23	6-Jun	22.58	21.83	44.4	0	0	0.0000	0.0000	0	0	0.0000	0.0000
23	7-Jun	23.17	23.50	46.7	0	0	0.0000	0.0000	0	0	0.0000	0.0000
23	8-Jun	23.00	23.58	46.6	0	0	0.0000	0.0000	0	0	0.0000	0.0000
23	9-Jun	22.92	23.58	46.5	0	0	0.0000	0.0000	0	0	0.0000	0.0000
24	10-Jun	23.17	23.50	46.7	0	0	0.0000	0.0000	0	0	0.0000	0.0000
24	11-Jun	23.08	23.42	46.5	0	0	0.0000	0.0000	0	0	0.0000	0.0000
24	12-Jun	23.42	23.58	47.0	0	0	0.0000	0.0000	0	0	0.0000	0.0000
24	13-Jun	23.67	22.58	46.3	0	0	0.0000	0.0000	0	0	0.0000	0.0000
24	14-Jun	23.50	23.25	46.8	0	0	0.0000	0.0000	0	0	0.0000	0.0000
24	15-Jun	23.25	23.25	46.5	0	0	0.0000	0.0000	0	0	0.0000	0.0000
24	16-Jun	23.53	23.25	46.8	0	0	0.0000	0.0000	0	0	0.0000	0.0000
25	17-Jun	23.00	23.33	46.3	0	0	0.0000	0.0000	0	0	0.0000	0.0000
25	18-Jun	23.30	23.50	46.8	0	0	0.0000	0.0000	0	0	0.0000	0.0000
25	19-Jun	22.92	22.75	45.7	0	0	0.0000	0.0000	0	0	0.0000	0.0000
25	20-Jun	23.08	23.25	46.3	0	0	0.0000	0.0000	0	0	0.0000	0.0000
25	21-Jun	23.58	23.17	46.8	0	0	0.0000	0.0000	0	0	0.0000	0.0000
25	22-Jun	23.92	23.67	47.6	0	0	0.0000	0.0000	0	0	0.0000	0.0000
25	23-Jun	23.42	20.75	44.2	0	0	0.0000	0.0000	1	1	0.0226	0.0039
26	24-Jun	22.58	23.00	45.6	3	3	0.0658	0.0003	0	1	0.0000	0.0039
26	25-Jun	22.25	23.17	45.4	2	5	0.0440	0.0005	0	1	0.0000	0.0039
26	26-Jun	21.92	22.75	44.7	6	11	0.1343	0.0012	0	1	0.0000	0.0039
26	27-Jun	21.83	23.17	45.0	9	20	0.2000	0.0022	0	1	0.0000	0.0039
26	28-Jun	23.17	23.75	46.9	13	33	0.2771	0.0036	0	1	0.0000	0.0039
26	29-Jun	22.83	23.58	46.4	19	52	0.4094	0.0056	0	1	0.0000	0.0039
26	30-Jun	22.58	22.58	45.2	43	95	0.9522	0.0103	0	1	0.0000	0.0039
27	1-Jul	21.59	23.08	44.7	66	161	1.4775	0.0177	0	1	0.0000	0.0039
27	2-Jul	22.25	22.75	45.0	43	204	0.9556	0.0224	0	1	0.0000	0.0039
27	3-Jul	22.58	23.00	45.6	103	307	2.2598	0.0337	0	1	0.0000	0.0039
27	4-Jul	22.25	23.17	45.4	159	466	3.5007	0.0511	0	1	0.0000	0.0039
27	5-Jul	23.00	23.25	46.3	163	629	3.5243	0.0686	0	1	0.0000	0.0039
27	6-Jul	23.00	23.22	46.2	195	824	4.2190	0.0895	0	1	0.0000	0.0039

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		FISHING EFFORT			PINK				CHUM			
Stat		FWI	FWII	Total	Total Catches		Daily	Cumul.	Total Catches		Daily	Cumul.
Week	Date	Effort	Effort	Effort	Daily	Cum.	CPUE	Prop. CPUE	Daily	Cum.	CPUE	Prop. CPUE
27	7-Jul	23.33	23.50	46.8	201	1,025	4.2921	0.1108	0	1	0.0000	0.0039
28	8-Jul	22.92	22.92	45.8	254	1,279	5.5410	0.1384	0	1	0.0000	0.0039
28	9-Jul	22.75	22.92	45.7	171	1,450	3.7443	0.1570	0	1	0.0000	0.0039
28	10-Jul	23.00	23.50	46.5	204	1,654	4.3871	0.1788	0	1	0.0000	0.0039
28	11-Jul	23.08	23.42	46.5	296	1,950	6.3656	0.2104	0	1	0.0000	0.0039
28	12-Jul	23.00	23.42	46.4	561	2,511	12.0853	0.2704	0	1	0.0000	0.0039
28	13-Jul	23.17	23.42	46.6	435	2,946	9.3368	0.3168	0	1	0.0000	0.0039
28	14-Jul	22.50	23.17	45.7	412	3,358	9.0212	0.3616	0	1	0.0000	0.0039
29	15-Jul	22.25	22.67	44.9	523	3,881	11.6429	0.4195	0	1	0.0000	0.0039
29	16-Jul	22.17	23.08	45.3	625	4,506	13.8122	0.4881	0	1	0.0000	0.0039
29	17-Jul	21.42	23.33	44.8	461	4,967	10.3017	0.5393	0	1	0.0000	0.0039
29	18-Jul	22.50	23.25	45.8	349	5,316	7.6284	0.5772	0	1	0.0000	0.0039
29	19-Jul	22.58	23.42	46.0	291	5,607	6.3261	0.6086	0	1	0.0000	0.0039
29	20-Jul	22.75	23.17	45.9	269	5,876	5.8580	0.6377	0	1	0.0000	0.0039
29	21-Jul	22.25	22.92	45.2	311	6,187	6.8851	0.6719	0	1	0.0000	0.0039
30	22-Jul	22.92	22.33	45.3	174	6,361	3.8453	0.6910	0	1	0.0000	0.0039
30	23-Jul	23.25	19.92	43.2	131	6,492	3.0345	0.7061	0	1	0.0000	0.0039
30	24-Jul	22.50	21.42	43.9	357	6,849	8.1284	0.7465	0	1	0.0000	0.0039
30	25-Jul	21.75	21.25	43.0	500	7,349	11.6279	0.8043	0	1	0.0000	0.0039
30	26-Jul	22.42	22.25	44.7	454	7,803	10.1634	0.8547	0	1	0.0000	0.0039
30	27-Jul	22.92	22.58	45.5	380	8,183	8.3516	0.8962	0	1	0.0000	0.0039
30	28-Jul	22.42	23.33	45.8	287	8,470	6.2732	0.9274	0	1	0.0000	0.0039
31	29-Jul	23.25	23.42	46.7	118	8,588	2.5284	0.9400	0	1	0.0000	0.0039
31	30-Jul	22.50	22.67	45.2	92	8,680	2.0368	0.9501	0	1	0.0000	0.0039
31	31-Jul	22.08	22.67	44.8	97	8,777	2.1676	0.9609	0	1	0.0000	0.0039
31	1-Aug	22.50	23.50	46.0	63	8,840	1.3696	0.9677	0	1	0.0000	0.0039
31	2-Aug	22.75	23.67	46.4	44	8,884	0.9479	0.9724	0	1	0.0000	0.0039
31	3-Aug	22.83	23.67	46.5	55	8,939	1.1828	0.9782	0	1	0.0000	0.0039
31	4-Aug	23.42	23.75	47.2	24	8,963	0.5088	0.9808	1	2	0.0212	0.0076
32	5-Aug	23.25	23.50	46.8	33	8,996	0.7059	0.9843	0	2	0.0000	0.0076
32	6-Aug	22.75	23.00	45.8	32	9,028	0.6995	0.9878	2	4	0.0437	0.0151
32	7-Aug	22.50	22.58	45.1	24	9,052	0.5324	0.9904	1	5	0.0222	0.0189
32	8-Aug	23.33	23.17	46.5	13	9,065	0.2796	0.9918	2	7	0.0430	0.0263
32	9-Aug	9.17	9.58	18.8	1	9,066	0.0533	0.9921	0	7	0.0000	0.0263
32	10-Aug	0.00	0.00			9,066	0.0000	0.9921		7	0.0000	0.0263
32	11-Aug	6.67	5.58	2.3	2	9,068	0.1633	0.9929	0	7	0.0000	0.0263
33	12-Aug	22.25	13.83	1.7	22	9,090	0.6098	0.9959	2	9	0.0554	0.0359
33	13-Aug	22.75	0.00		7	9,097	0.0000	0.9959	4	13	0.0000	0.0359

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Stat Week	Date	FISHING EFFORT			PINK				CHUM			
		FWI	FWII	Total	Total Catches		Daily	Cumul.	Total Catches		Daily	Cumul.
		Effort	Effort	Effort	Daily	Cum.	CPUE	Prop. CPUE	Daily	Cum.	CPUE	Prop. CPUE
33	14-Aug	22.25	3.00	2.1	2	9,099	0.0792	0.9963	3	16	0.1188	0.0563
33	15-Aug	21.25	23.67	2.2	3	9,102	0.0668	0.9966	7	23	0.1558	0.0832
33	16-Aug	23.25	23.50	2.3	2	9,104	0.0428	0.9968	2	25	0.0428	0.0906
33	17-Aug	23.42	23.67	2.2	4	9,108	0.0849	0.9973	6	31	0.1274	0.1125
33	18-Aug	23.42	23.92	2.5	1	9,109	0.0211	0.9974	3	34	0.0634	0.1234
34	19-Aug	23.42	23.75	2.5	2	9,111	0.0424	0.9976	8	42	0.1696	0.1526
34	20-Aug	23.42	23.50	2.6	1	9,112	0.0213	0.9977	6	48	0.1279	0.1747
34	21-Aug	23.50	23.67	2.5	0	9,112	0.0000	0.9977	5	53	0.1060	0.1929
34	22-Aug	23.42	23.67	2.7	4	9,116	0.0849	0.9981	6	59	0.1274	0.2149
34	23-Aug	23.67	23.67	2.5	1	9,117	0.0211	0.9982	4	63	0.0845	0.2294
34	24-Aug	23.50	23.75	2.6	2	9,119	0.0423	0.9984	4	67	0.0847	0.2440
34	25-Aug	23.58	23.67	2.3	3	9,122	0.0635	0.9987	7	74	0.1481	0.2695
35	26-Aug	23.50	23.75	2.4	1	9,123	0.0212	0.9988	5	79	0.1058	0.2878
35	27-Aug	23.00	23.00	2.9	3	9,126	0.0652	0.9992	6	85	0.1304	0.3102
35	28-Aug	22.92	23.58	2.8	0	9,126	0.0000	0.9992	5	90	0.1075	0.3288
35	29-Aug	23.50	23.75	2.3	3	9,129	0.0635	0.9995	10	100	0.2116	0.3652
35	30-Aug	23.25	23.33	2.2	1	9,130	0.0215	0.9996	18	118	0.3864	0.4318
35	31-Aug	23.08	23.67	2.7	1	9,131	0.0214	0.9997	5	123	0.1070	0.4502
35	1-Sep	23.08	23.75	2.6	0	9,131	0.0000	0.9997	11	134	0.2349	0.4907
36	2-Sep	23.08	23.67	2.5	0	9,131	0.0000	0.9997	7	141	0.1497	0.5165
36	3-Sep	22.83	23.67	2.1	1	9,132	0.0215	0.9998	6	147	0.1290	0.5387
36	4-Sep	23.75	23.75	2.1	1	9,133	0.0211	0.9999	7	154	0.1474	0.5641
36	5-Sep	23.58	23.75	2.1	0	9,133	0.0000	0.9999	9	163	0.1902	0.5969
36	6-Sep	23.50	23.67	2.2	1	9,134	0.0212	1.0000	7	170	0.1484	0.6224
36	7-Sep	23.50	23.67	2.2	0	9,134	0.0000	1.0000	5	175	0.1060	0.6407
36	8-Sep	23.25	23.08	2.6	0	9,134	0.0000	1.0000	5	180	0.1079	0.6593
37	9-Sep	23.00	23.92	2.1	0	9,134	0.0000	1.0000	10	190	0.2131	0.6960
37	10-Sep	0.00	23.67	1.4	0	9,134	0.0000	1.0000	11	201	0.4647	0.7761
37	11-Sep	0.00	0.00		0	9,134	0.0000	1.0000	3	204	0.0000	0.7761
37	12-Sep	0.00	0.00		0	9,134	0.0000	1.0000	2	206	0.0000	0.7761
37	13-Sep	14.75	14.42	2.6	0	9,134	0.0000	1.0000	1	207	0.0343	0.7820
37	14-Sep	23.08	23.67	3.2	0	9,134	0.0000	1.0000	4	211	0.0856	0.7967
37	15-Sep	23.08	23.67	2.9	0	9,134	0.0000	1.0000	3	214	0.0642	0.8078
38	16-Sep	22.17	23.67	2.3	0	9,134	0.0000	1.0000	5	219	0.1091	0.8266
38	17-Sep	23.17	23.92	2.6	0	9,134	0.0000	1.0000	5	224	0.1062	0.8449
38	18-Sep	23.17	23.92	2.6	0	9,134	0.0000	1.0000	4	228	0.0849	0.8595
38	19-Sep	23.50	23.83	2.1	0	9,134	0.0000	1.0000	5	233	0.1056	0.8777
38	20-Sep	22.75	16.92	1.5	0	9,134	0.0000	1.0000	3	236	0.0756	0.8907

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		FISHING EFFORT			PINK				CHUM			
Stat		FWI	FWII	Total	Total Catches		Daily	Cumul.	Total Catches		Daily	Cumul.
Week	Date	Effort	Effort	Effort	Daily	Cum.	CPUE	Prop. CPUE	Daily	Cum.	CPUE	Prop. CPUE
38	21-Sep	23.58	0.00	23.6	0	9,134	0.0000	1.0000	3	239	0.1272	0.9126
38	22-Sep	23.42	0.00	23.4	0	9,134	0.0000	1.0000	2	241	0.0854	0.9274
39	23-Sep	22.92	0.00	22.9	0	9,134	0.0000	1.0000	3	244	0.1309	0.9499
39	24-Sep	23.17	0.00	23.2	0	9,134	0.0000	1.0000	2	246	0.0863	0.9648
39	25-Sep	23.33	0.00	23.3	0	9,134	0.0000	1.0000	2	248	0.0857	0.9795
39	26-Sep	23.43	0.00	23.4	0	9,134	0.0000	1.0000	0	248	0.0000	0.9795
39	27-Sep	8.42	0.00	8.4	0	9,134	0.0000	1.0000	1	249	0.1188	1.0000
39	28-Sep	0.00	0.00	0.0	0	9,134	0.0000	1.0000	1	250	0.0000	1.0000

Appendix C.5. Catches, number tagged, and CPUE of pink and chum salmon in the fish wheels at Canyon Island, 2002.

		FISHING EFFORT			PINK				CHUM			
Stat Week	Date	FWI Effort	FWII Effort	Total Effort	Total Catches Daily	Cum.	Daily CPUE	Cumul. Prop. CPUE	Total Catches Daily	Cum.	Daily CPUE	Cumul. Prop. CPUE
21	19-May	4.33		4.3	0	0	0.0000	0.0000	0	0	0.0000	0.0000
21	20-May	21.33		21.3	0	0	0.0000	0.0000	0	0	0.0000	0.0000
21	21-May	23.33	5.75	29.1	0	0	0.0000	0.0000	0	0	0.0000	0.0000
21	22-May	23.17	23.25	46.4	0	0	0.0000	0.0000	0	0	0.0000	0.0000
21	23-May	23.25	23.58	46.8	0	0	0.0000	0.0000	0	0	0.0000	0.0000
21	24-May	22.58	23.75	46.3	0	0	0.0000	0.0000	0	0	0.0000	0.0000
21	25-May	23.33	23.92	47.3	0	0	0.0000	0.0000	0	0	0.0000	0.0000
22	26-May	23.58	23.50	47.1	0	0	0.0000	0.0000	0	0	0.0000	0.0000
22	27-May	23.33	23.75	47.1	0	0	0.0000	0.0000	0	0	0.0000	0.0000
22	28-May	23.25	22.83	46.1	0	0	0.0000	0.0000	0	0	0.0000	0.0000
22	29-May	23.50	23.58	47.1	0	0	0.0000	0.0000	0	0	0.0000	0.0000
22	30-May	23.58	23.58	47.2	0	0	0.0000	0.0000	0	0	0.0000	0.0000
22	31-May	23.25	23.58	46.8	0	0	0.0000	0.0000	0	0	0.0000	0.0000
22	1-Jun	22.00	22.67	44.7	0	0	0.0000	0.0000	0	0	0.0000	0.0000
23	2-Jun	22.00	22.75	44.8	0	0	0.0000	0.0000	0	0	0.0000	0.0000
23	3-Jun	23.00	23.00	46.0	0	0	0.0000	0.0000	0	0	0.0000	0.0000
23	4-Jun	23.00	23.58	46.6	0	0	0.0000	0.0000	0	0	0.0000	0.0000
23	5-Jun	23.17	23.25	46.4	0	0	0.0000	0.0000	0	0	0.0000	0.0000
23	6-Jun	23.17	23.17	46.3	0	0	0.0000	0.0000	0	0	0.0000	0.0000
23	7-Jun	23.50	22.58	46.1	0	0	0.0000	0.0000	0	0	0.0000	0.0000
23	8-Jun	23.33	23.33	46.7	0	0	0.0000	0.0000	0	0	0.0000	0.0000
24	9-Jun	22.67	23.33	46.0	0	0	0.0000	0.0000	0	0	0.0000	0.0000
24	10-Jun	23.00	23.33	46.3	0	0	0.0000	0.0000	0	0	0.0000	0.0000
24	11-Jun	22.15	22.25	44.4	0	0	0.0000	0.0000	0	0	0.0000	0.0000
24	12-Jun	23.17	22.42	45.6	0	0	0.0000	0.0000	0	0	0.0000	0.0000
24	13-Jun	23.25	23.17	46.4	0	0	0.0000	0.0000	0	0	0.0000	0.0000
24	14-Jun	22.75	22.75	45.5	0	0	0.0000	0.0000	0	0	0.0000	0.0000
24	15-Jun	22.67	23.00	45.7	0	0	0.0000	0.0000	0	0	0.0000	0.0000
25	16-Jun	23.67	22.92	46.6	0	0	0.0000	0.0000	0	0	0.0000	0.0000
25	17-Jun	23.58	23.33	46.9	0	0	0.0000	0.0000	0	0	0.0000	0.0000
25	18-Jun	22.75	23.00	45.8	0	0	0.0000	0.0000	0	0	0.0000	0.0000
25	19-Jun	23.17	23.42	46.6	0	0	0.0000	0.0000	0	0	0.0000	0.0000
25	20-Jun	23.25	23.42	46.7	0	0	0.0000	0.0000	0	0	0.0000	0.0000
25	21-Jun	23.00	23.33	46.3	0	0	0.0000	0.0000	0	0	0.0000	0.0000
25	22-Jun	23.25	22.92	46.2	0	0	0.0000	0.0000	0	0	0.0000	0.0000
26	23-Jun	23.00	23.00	46.0	0	0	0.0000	0.0000	0	0	0.0000	0.0000
26	24-Jun	22.25	23.00	45.3	0	0	0.0000	0.0000	0	0	0.0000	0.0000
26	25-Jun	22.30	22.25	44.6	5	5	0.1122	0.0009	0	0	0.0000	0.0000
26	26-Jun	22.33	22.83	45.2	3	8	0.0664	0.0014	0	0	0.0000	0.0000
26	27-Jun	22.75	23.00	45.8	4	12	0.0874	0.0021	1	1	0.0219	0.0048
26	28-Jun	23.00	22.92	45.9	12	24	0.2613	0.0042	0	1	0.0000	0.0048

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Stat Week	Date	FISHING EFFORT			PINK				CHUM			
		FWI Effort	FWII Effort	Total Effort	Total Catches Daily	Cum.	Daily CPUE	Cumul. Prop. CPUE	Total Catches Daily	Cum.	Daily CPUE	Cumul. Prop. CPUE
26	29-Jun	22.67	23.33	46.0	2	26	0.0435	0.0046	1	2	0.0217	0.0096
27	30-Jun	22.58	22.42	45.0	10	36	0.2222	0.0064	1	3	0.0222	0.0144
27	1-Jul	22.75	22.42	45.2	26	62	0.5756	0.0110	0	3	0.0000	0.0144
27	2-Jul	22.92	23.25	46.2	14	76	0.3032	0.0134	0	3	0.0000	0.0144
27	3-Jul	22.75	22.92	45.7	29	105	0.6350	0.0185	0	3	0.0000	0.0144
27	4-Jul	23.17	23.42	46.6	22	127	0.4722	0.0223	0	3	0.0000	0.0144
27	5-Jul	22.58	22.92	45.5	22	149	0.4835	0.0261	0	3	0.0000	0.0144
27	6-Jul	23.25	23.42	46.7	27	176	0.5785	0.0308	0	3	0.0000	0.0144
28	7-Jul	22.42	23.00	45.4	22	198	0.4844	0.0347	0	3	0.0000	0.0144
28	8-Jul	22.83	22.75	45.6	25	223	0.5485	0.0391	0	3	0.0000	0.0144
28	9-Jul	21.30	23.08	44.4	132	355	2.9743	0.0629	0	3	0.0000	0.0144
28	10-Jul	21.58	22.17	43.8	200	555	4.5714	0.0995	1	4	0.0229	0.0194
28	11-Jul	22.30	22.75	45.1	213	768	4.7281	0.1374	0	4	0.0000	0.0194
28	12-Jul	22.67	23.33	46.0	204	972	4.4348	0.1729	0	4	0.0000	0.0194
28	13-Jul	23.25	23.58	46.8	104	1,076	2.2208	0.1907	0	4	0.0000	0.0194
29	14-Jul	21.08	23.33	44.4	86	1,162	1.9365	0.2063	0	4	0.0000	0.0194
29	15-Jul	21.92	20.83	42.8	229	1,391	5.3567	0.2492	0	4	0.0000	0.0194
29	16-Jul	22.25	22.25	44.5	182	1,573	4.0899	0.2820	0	4	0.0000	0.0194
29	17-Jul	22.50	22.67	45.2	281	1,854	6.2209	0.3318	0	4	0.0000	0.0194
29	18-Jul	23.17	22.08	45.3	344	2,198	7.6022	0.3927	1	5	0.0221	0.0243
29	19-Jul	22.67	22.33	45.0	414	2,612	9.2000	0.4665	1	6	0.0222	0.0292
29	20-Jul	22.92	22.67	45.6	434	3,046	9.5196	0.5427	0	6	0.0000	0.0292
30	21-Jul	23.17	22.67	45.8	637	3,683	13.8962	0.6541	0	6	0.0000	0.0292
30	22-Jul	23.17	22.75	45.9	337	4,020	7.3389	0.7129	0	6	0.0000	0.0292
30	23-Jul	22.67	22.50	45.2	272	4,292	6.0217	0.7611	0	6	0.0000	0.0292
30	24-Jul	22.33	23.08	45.4	103	4,395	2.2682	0.7793	0	6	0.0000	0.0292
30	25-Jul	23.25	23.58	46.8	69	4,464	1.4734	0.7911	0	6	0.0000	0.0292
30	26-Jul	23.25	23.33	46.6	155	4,619	3.3276	0.8178	0	6	0.0000	0.0292
30	27-Jul	23.25	23.50	46.8	190	4,809	4.0642	0.8504	0	6	0.0000	0.0292
31	28-Jul	23.00	23.25	46.3	159	4,968	3.4378	0.8779	1	7	0.0216	0.0339
31	29-Jul	22.58	23.58	46.2	149	5,117	3.2279	0.9038	0	7	0.0000	0.0339
31	30-Jul	23.25	23.00	46.3	61	5,178	1.3189	0.9143	0	7	0.0000	0.0339
31	31-Jul	23.25	23.42	46.7	34	5,212	0.7285	0.9202	0	7	0.0000	0.0339
31	1-Aug	23.33	23.33	46.7	76	5,288	1.6288	0.9332	0	7	0.0000	0.0339
31	2-Aug	23.25	23.42	46.7	103	5,391	2.2070	0.9509	0	7	0.0000	0.0339
31	3-Aug	22.42	23.17	45.6	72	5,463	1.5793	0.9636	1	8	0.0219	0.0387
32	4-Aug	22.75	23.08	45.8	61	5,524	1.3310	0.9742	1	9	0.0218	0.0435
32	5-Aug	23.00	23.08	46.1	41	5,565	0.8898	0.9814	0	9	0.0000	0.0435

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Appendix C.5. (Page 3 of 3).

Stat Week	Date	FISHING EFFORT FWI Effort	FWII Effort	Total Effort	PINK Total Catches Daily	Cum.	Daily CPUE	Cumul. Prop. CPUE	CHUM Total Catches Daily	Cum.	Daily CPUE	Cumul. Prop. CPUE
32	6-Aug	22.75	23.42	46.2	19	5,584	0.4115	0.9847	0	9	0.0000	0.0435
32	7-Aug	23.17	23.75	46.9	17	5,601	0.3623	0.9876	0	9	0.0000	0.0435
32	8-Aug	23.00	23.58	46.6	9	5,610	0.1932	0.9891	1	10	0.0215	0.0482
32	9-Aug	23.15	23.00	46.2	8	5,618	0.1733	0.9905	0	10	0.0000	0.0482
32	10-Aug	23.35	23.50	46.9	4	5,622	0.0854	0.9912	1	11	0.0213	0.0529
33	11-Aug	22.92	23.75	46.7	17	5,639	0.3643	0.9941	0	11	0.0000	0.0529
33	12-Aug	23.25	23.75	47.0	9	5,648	0.1915	0.9957	0	11	0.0000	0.0529
33	13-Aug	15.75	15.67	31.4	2	5,650	0.0637	0.9962	1	12	0.0318	0.0599
33	14-Aug	13.92	13.67	27.6	0	5,650	0.0000	0.9962	0	12	0.0000	0.0599
33	15-Aug	23.50	23.67	47.2	1	5,651	0.0212	0.9963	0	12	0.0000	0.0599
33	16-Aug	8.75	9.25	18.0	0	5,651	0.0000	0.9963	1	13	0.0556	0.0721
33	17-Aug			0.0		5,651	0.0000	0.9963		13	0.0000	0.0721
34	18-Aug	7.33	13.00	20.3	0	5,651	0.0000	0.9963	0	13	0.0000	0.0721
34	19-Aug	22.83	23.00	45.8	8	5,659	0.1746	0.9977	1	14	0.0218	0.0768
34	20-Aug	23.25	23.00	46.3	4	5,663	0.0865	0.9984	1	15	0.0216	0.0816
34	21-Aug	23.42	23.58	47.0	0	5,663	0.0000	0.9984	2	17	0.0426	0.0909
34	22-Aug	22.42	23.00	45.4	1	5,664	0.0220	0.9986	2	19	0.0440	0.1006
34	23-Aug	22.50	23.50	46.0	0	5,664	0.0000	0.9986	4	23	0.0870	0.1196
34	24-Aug	23.17	23.58	46.8	0	5,664	0.0000	0.9986	0	23	0.0000	0.1196
35	25-Aug	21.67	23.50	45.2	2	5,666	0.0443	0.9990	4	27	0.0886	0.1391
35	26-Aug	22.42	23.67	46.1	1	5,667	0.0217	0.9991	1	28	0.0217	0.1438
35	27-Aug	22.75	23.50	46.3	1	5,668	0.0216	0.9993	2	30	0.0432	0.1533
35	28-Aug	23.42	23.25	46.7	1	5,669	0.0214	0.9995	1	31	0.0214	0.1580
35	29-Aug	19.92	23.25	43.2	0	5,669	0.0000	0.9995	3	34	0.0695	0.1732
35	30-Aug	22.92	22.92	45.8	1	5,670	0.0218	0.9996	6	40	0.1309	0.2019
35	31-Aug	22.83	22.58	45.4	2	5,672	0.0440	1.0000	16	56	0.3523	0.2792
36	1-Sep	22.50	23.33	45.8	0	5,672	0.0000	1.0000	15	71	0.3273	0.3510
36	2-Sep	23.33	22.50	45.8	0	5,672	0.0000	1.0000	14	85	0.3055	0.4180
36	3-Sep	22.42	22.50	44.9	0	5,672	0.0000	1.0000	12	97	0.2671	0.4765
36	4-Sep	22.92	23.33	46.3	0	5,672	0.0000	1.0000	17	114	0.3676	0.5571
36	5-Sep	21.50	23.08	44.6	0	5,672	0.0000	1.0000	29	143	0.6505	0.6998
36	6-Sep	22.83	23.25	46.1	0	5,672	0.0000	1.0000	22	165	0.4774	0.8045
36	7-Sep	23.00	23.50	46.5	0	5,672	0.0000	1.0000	3	168	0.0645	0.8186
37	8-Sep	23.17	23.50	46.7	0	5,672	0.0000	1.0000	4	172	0.0857	0.8374
37	9-Sep	23.00	23.67	46.7	0	5,672	0.0000	1.0000	4	176	0.0857	0.8562
37	10-Sep	23.58	23.67	47.3	0	5,672	0.0000	1.0000	1	177	0.0212	0.8609
37	11-Sep	23.75	23.58	47.3	0	5,672	0.0000	1.0000	9	186	0.1902	0.9026
37	12-Sep	8.58	23.75	32.3	0	5,672	0.0000	1.0000	5	191	0.1547	0.9365
37	13-Sep		23.67	23.7	0	5,672	0.0000	1.0000	2	193	0.0845	0.9550
37	14-Sep		9.75	9.8	0	5,672	0.0000	1.0000	2	195	0.2051	1.0000

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Appendix D.1. Age composition of sockeye salmon in the Canyon Island, Taku River, fish wheels by sex and fishing period, 1998.

	Brood Year and Age Class											
	1996	1995	1995	1994	1994	1994	1993	1993	1992	1992	1991	
	0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.3	Total
Statistical Week	23	(May 31 - June 6)										
Male												
Sample Size							6					6
Percent							60.0					60.0
Std. Error							16.3					16.3
Female												
Sample Size							4					4
Percent							40.0					40.0
Std. Error							16.3					16.3
All Fish												
Sample Size							10					10
Percent							%100.0					100.0
Std. Error												
Statistical Week	24	(June 7 - 13)										
Male												
Sample Size					1		27					28
Percent					2.1		56.3					58.3
Std. Error					2.1		7.2					7.2
Female												
Sample Size					1		18			1		20
Percent					2.1		37.5			2.1		41.7
Std. Error					2.1		7.1			2.1		7.2
All Fish												
Sample Size					2		45			1		48
Percent					4.2		93.8			2.1		100.0
Std. Error					2.9		3.5			2.1		

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Appendix D.1 (Page 2 of 9).

	Brood Year and Age Class											
	1996	1995	1995	1994	1994	1994	1993	1993	1992	1992	1991	
	0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.3	Total
Statistical Week 25 (June 14 - 20)												
Male												
Sample Size		2		2	20		75	1		2		102
Percent		1.0		1.0	9.5		35.7	0.5		1.0		48.6
Std. Error		0.7		0.7	2.0		3.3	0.5		0.7		3.4
Female												
Sample Size				1	13		91	1		2		108
Percent				0.5	6.2		43.3	0.5		1.0		51.4
Std. Error				0.5	1.7		3.4	0.5		0.7		3.4
All Fish												
Sample Size		2		3	33		166	2		4		210
Percent		1.0		1.4	15.7		79.0	1.0		1.9		100.0
Std. Error		0.7		0.8	2.5		2.8	0.7		0.9		
Statistical Week 26 (June 21 - 27)												
Male												
Sample Size		4	1	2	41		71	1	1	1		122
Percent		1.6	0.4	0.8	16.1		27.8	0.4	0.4	0.4		47.8
Std. Error		0.8	0.4	0.5	2.3		2.8	0.4	0.4	0.4		3.1
Female												
Sample Size				1	39		89	3		1		133
Percent				0.4	15.3		34.9	1.2		0.4		52.2
Std. Error				0.4	2.2		3.0	0.7		0.4		3.1
All Fish												
Sample Size		4	1	3	80		160	4	1	2		255
Percent		1.6	0.4	1.2	31.4		62.7	1.6	0.4	0.8		100.0
Std. Error		0.8	0.4	0.7	2.9		3.0	0.8	0.4	0.5		

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Appendix D.1. (Page 3 of 9).

	Brood Year and Age Class											
	1996	1995	1995	1994	1994	1994	1993	1993	1992	1992	1991	
	0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.3	Total
Statistical Week	27	(June 28 - July 4)										
Male												
Sample Size		5			45		40	3	1	2		96
Percent		2.5			22.5		20.0	1.5	0.5	1.0		48.0
Std. Error		1.1			2.9		2.8	0.9	0.5	0.7		3.5
Female												
Sample Size		1		1	47		51	1	1	2		104
Percent		0.5		0.5	23.5		25.5	0.5	0.5	1.0		52.0
Std. Error		0.5		0.5	3.0		3.1	0.5	0.5	0.7		3.5
All Fish												
Sample Size		6		1	92		91	4	2	4		200
Percent		3.0		0.5	46.0		45.5	2.0	1.0	2.0		100.0
Std. Error		1.2		0.5	3.5		3.5	1.0	0.7	1.0		
Statistical Week	28	(July 5 - 11)										
Male												
Sample Size		9	2		57	1	49	6		2		126
Percent		3.6	0.8		23.0	0.4	19.8	2.4		0.8		50.8
Std. Error		1.2	0.6		2.7	0.4	2.5	1.0		0.6		3.2
Female												
Sample Size				1	44		68	3		6		122
Percent				0.4	17.7		27.4	1.2		2.4		49.2
Std. Error				0.4	2.4		2.8	0.7		1.0		3.2
All Fish												
Sample Size		9	2	1	101	1	117	9		8		248
Percent		3.6	0.8	0.4	40.7	0.4	47.2	3.6		3.2		100.0
Std. Error		1.2	0.6	0.4	3.1	0.4	3.2	1.2		1.1		

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Appendix D.1. (Page 4 of 9).

	Brood Year and Age Class											
	1996	1995	1995	1994	1994	1994	1993	1993	1992	1992	1991	
	0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.3	Total
Statistical Week	29	(July 12 - 18)										
Male												
Sample Size		6	5	1	68		50	3		3		136
Percent		2.2	1.8	0.4	24.7		18.2	1.1		1.1		49.5
Std. Error		0.9	0.8	0.4	2.6		2.3	0.6		0.6		3.0
Female												
Sample Size		1		1	29		91	6		10	1	139
Percent		0.4		0.4	10.5		33.1	2.2		3.6	0.4	50.5
Std. Error		0.4		0.4	1.8		2.8	0.9		1.1	0.4	3.0
All Fish												
Sample Size		7	5	2	97		141	9		13	1	275
Percent		2.5	1.8	0.7	35.3		51.3	3.3		4.7	0.4	100.0
Std. Error		0.9	0.8	0.5	2.9		3.0	1.1		1.3	0.4	
Statistical Week	30	(July 19 - 25)										
Male												
Sample Size		8	10	1	25		48	3	1	7		103
Percent		3.6	4.5	0.5	11.4		21.8	1.4	0.5	3.2		46.8
Std. Error		1.3	1.4	0.5	2.1		2.8	0.8	0.5	1.2		3.4
Female												
Sample Size		3		2	22		77	8		5		117
Percent		1.4		0.9	10.0		35.0	3.6		2.3		53.2
Std. Error		0.8		0.6	2.0		3.2	1.3		1.0		3.4
All Fish												
Sample Size		11	10	3	47		125	11	1	12		220
Percent		5.0	4.5	1.4	21.4		56.8	5.0	0.5	5.5		100.0
Std. Error		1.5	1.4	0.8	2.8		3.3	1.5	0.5	1.5		

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	Brood Year and Age Class										
	1996	1995	1995	1994	1994	1994	1993	1993	1992	1992	1991	
	0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.3	Total
Statistical Week 31 (July 26 - August 1)												
Male												
Sample Size		10	6	1	27	1	40	1	1	1		88
Percent		5.6	3.3	0.6	15.0	0.6	22.2	0.6	0.6	0.6		48.9
Std. Error		1.7	1.3	0.6	2.7	0.6	3.1	0.6	0.6	0.6		3.7
Female												
Sample Size		1		2	15		60	5		9		92
Percent		0.6		1.1	8.3		33.3	2.8		5.0		51.1
Std. Error		0.6		0.8	2.1		3.5	1.2		1.6		3.7
All Fish												
Sample Size		11	6	3	42	1	100	6	1	10		180
Percent		6.1	3.3	1.7	23.3	0.6	55.6	3.3	0.6	5.6		100.0
Std. Error		1.8	1.3	1.0	3.1	0.6	3.7	1.3	0.6	1.7		
Statistical Week 32 (August 2 - 8)												
Male												
Sample Size		13	8	1	19	3	25	1		3		73
Percent		7.6	4.7	0.6	11.0	1.7	14.5	0.6		1.7		42.4
Std. Error		2.0	1.6	0.6	2.4	1.0	2.7	0.6		1.0		3.8
Female												
Sample Size		3		1	12		58	17	1	7		99
Percent		1.7		0.6	7.0		33.7	9.9	0.6	4.1		57.6
Std. Error		1.0		0.6	1.9		3.6	2.3	0.6	1.5		3.8
All Fish												
Sample Size		16	8	2	31	3	83	18	1	10		172
Percent		9.3	4.7	1.2	18.0	1.7	48.3	10.5	0.6	5.8		100.0
Std. Error		2.2	1.6	0.8	2.9	1.0	3.8	2.3	0.6	1.8		

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	Brood Year and Age Class										
	1996	1995	1995	1994	1994	1994	1993	1993	1992	1992	1991	
	0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.3	Total
Statistical Week	33	(August 9 - 15)										
Male												
Sample Size		3	23	2	17	2	36	3		3		89
Percent		1.8	13.5	1.2	9.9	1.2	21.1	1.8		1.8		52.0
Std. Error		1.0	2.6	0.8	2.3	0.8	3.1	1.0		1.0		3.8
Female												
Sample Size		1		1	8		51	13		8		82
Percent		0.6		0.6	4.7		29.8	7.6		4.7		48.0
Std. Error		0.6		0.6	1.6		3.5	2.0		1.6		3.8
All Fish												
Sample Size		4	23	3	25	2	87	16		11		171
Percent		2.3	13.5	1.8	14.6	1.2	50.9	9.4		6.4		100.0
Std. Error		1.2	2.6	1.0	2.7	0.8	3.8	2.2		1.9		
Statistical Week	34	(August 16 - 22)										
Male												
Sample Size	1	6	27		17	2	51	8		7		119
Percent	0.4	2.6	11.7		7.4	0.9	22.1	3.5		3.0		51.5
Std. Error	0.4	1.0	2.1		1.7	0.6	2.7	1.2		1.1		3.3
Female												
Sample Size				2	8		74	17		11		112
Percent				0.9	3.5		32.0	7.4		4.8		48.5
Std. Error				0.6	1.2		3.1	1.7		1.4		3.3
All Fish												
Sample Size	1	6	27	2	25	2	125	25		18		231
Percent	0.4	2.6	11.7	0.9	10.8	0.9	54.1	10.8		7.8		100.0
Std. Error	0.4	1.0	2.1	0.6	2.0	0.6	3.3	2.0		1.8		

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	Brood Year and Age Class											
	1996	1995	1995	1994	1994	1994	1993	1993	1992	1992	1991	
	0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.3	Total
Statistical Week	35	(August 23 - 29)										
Male												
Sample Size	1	1	14		12		21	1		4		54
Percent	0.8	0.8	11.7		10.0		17.5	0.8		3.3		45.0
Std. Error	0.8	0.8	2.9		2.7		3.5	0.8		1.6		4.5
Female												
Sample Size		1			4		40	16		5		66
Percent		0.8			3.3		33.3	13.3		4.2		55.0
Std. Error		0.8			1.6		4.3	3.1		1.8		4.5
All Fish												
Sample Size	1	2	14		16		61	17		9		120
Percent	0.8	1.7	11.7		13.3		50.8	14.2		7.5		100.0
Std. Error	0.8	1.2	2.9		3.1		4.6	3.2		2.4		
Statistical Week	36	(August 30 - Sept. 5)										
Male												
Sample Size			6		2		18			1		27
Percent			10.3		3.4		31.0			1.7		46.6
Std. Error			4.0		2.4		6.1			1.7		6.6
Female												
Sample Size				1	2		22	5		1		31
Percent				1.7	3.4		37.9	8.6		1.7		53.4
Std. Error				1.7	2.4		6.4	3.7		1.7		6.6
All Fish												
Sample Size			6	1	4		40	5		2		58
Percent			10.3	1.7	6.9		69.0	8.6		3.4		100.0
Std. Error			4.0	1.7	3.4		6.1	3.7		2.4		

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	Brood Year and Age Class											
	1996	1995	1995	1994	1994	1994	1993	1993	1992	1992	1991	
	0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.3	Total
Statistical Week	37	(Sept. 6 - 12)										
Male												
Sample Size			2		2		1	1				6
Percent			14.3		14.3		7.1	7.1				42.9
Std. Error			9.7		9.7		7.1	7.1				13.7
Female												
Sample Size					1		5	1		1		8
Percent					7.1		35.7	7.1		7.1		57.1
Std. Error					7.1		13.3	7.1		7.1		13.7
All Fish												
Sample Size			2		3		6	2		1		14
Percent			14.3		21.4		42.9	14.3		7.1		100.0
Std. Error			9.7		11.4		13.7	9.7		7.1		
Statistical Week	38	(Sept. 13 - 19)										
Male												
Sample Size			1		1		3	2				7
Percent			7.1		7.1		21.4	14.3				50.0
Std. Error			7.1		7.1		11.4	9.7				13.9
Female												
Sample Size					1		4	2				7
Percent					7.1		28.6	14.3				50.0
Std. Error					7.1		12.5	9.7				13.9
All Fish												
Sample Size			1		2		7	4				14
Percent			7.1		14.3		50.0	28.6				100.0
Std. Error			7.1		9.7		13.9	12.5				

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Appendix D.1. (Page 9 of 9).

	Brood Year and Age Class											
	1996	1995	1995	1994	1994	1994	1993	1993	1992	1992	1991	
	0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.3	Total
Statistical Week	39	(Sept. 20 - 26)										
Male												
Sample Size							1					1
Percent							33.3					33.3
Std. Error							33.3					33.3
Female												
Sample Size							2					2
Percent							66.7					66.7
Std. Error							33.3					33.3
All Fish												
Sample Size							3					3
Percent							%100.0					100.0
Std. Error												
Combined Periods												
Male												
Sample Size	2	67	105	10	354	9	562	34	4	36		1,183
Percent	0.1	1.9	4.9	0.3	11.0	0.3	26.5	2.1	0.1	1.2		48.4
Std. Error	0.1	0.2	0.8	0.1	0.9	0.1	2.5	0.7	0.1	0.2		2.6
Female												
Sample Size		11		14	246		805	98	2	69	1	1,246
Percent		0.3		0.5	7.6		35.8	4.7	0.1	2.6	<0.1	51.6
Std. Error		0.1		0.1	0.7		2.6	0.8	<0.1	0.5	<0.1	2.6
All Fish												
Sample Size	2	78	105	24	600	9	1,367	132	6	105	1	2,429
Percent	0.1	2.3	4.9	0.8	18.7	0.3	62.2	6.8	0.2	3.8	<0.1	100.0
Std. Error	0.1	0.3	0.8	0.2	1.1	0.1	1.4	1.0	0.1	0.5	<0.1	

Appendix D.2. Age composition of sockeye salmon in the Canyon Island, Taku River, fish wheels by sex and fishing period, 1999.

	Brood Year and Age Class												
	1997	1996	1996	1995	1995	1995	1994	1994	1994	1993	1993	1993	
	0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2	Total
Statistical Week 24 (June 6 - 12)													
Male													
Sample Size					10			22			1		33
Percent					16.7			36.7			1.7		55.0
Std. Error					4.8			6.3			1.7		6.5
Female													
Sample Size					1			26					27
Percent					1.7			43.3					45.0
Std. Error					1.7			6.4					6.5
All Fish													
Sample Size					11			48			1		60
Percent					18.3			80.0			1.7		100.0
Std. Error					5.0			5.2			1.7		
Statistical Week 25 (June 13 - 19)													
Male													
Sample Size			1		19			32			1		53
Percent			0.9		17.8			29.9			0.9		49.5
Std. Error			0.9		3.7			4.4			0.9		4.8
Female													
Sample Size					13			37	1		3		54
Percent					12.1			34.6	0.9		2.8		50.5
Std. Error					3.2			4.6	0.9		1.6		4.8
All Fish													
Sample Size			1		32			69	1		4		107
Percent			0.9		29.9			64.5	0.9		3.7		100.0
Std. Error			0.9		4.4			4.6	0.9		1.8		

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Appendix D.2. (Page 2 of 9).

	Brood Year and Age Class												
	1997	1996	1996	1995	1995	1995	1994	1994	1994	1993	1993	1993	
	0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2	Total
Statistical Week 26 (June 20 - 26)													
Male													
Sample Size				1	36			20	2		3		62
Percent				0.9	31.3			17.4	1.7		2.6		53.9
Std. Error				0.9	4.3			3.5	1.2		1.5		4.7
Female													
Sample Size					37			15	1				53
Percent					32.2			13.0	0.9				46.1
Std. Error					4.4			3.1	0.9				4.7
All Fish													
Sample Size				1	73			35	3		3		115
Percent				0.9	63.5			30.4	2.6		2.6		100.0
Std. Error				0.9	4.5			4.3	1.5		1.5		
Statistical Week 27 (June 27 - July 3)													
Male													
Sample Size		2		1	87			30	13		1		134
Percent		0.7		0.4	32.0			11.0	4.8		0.4		49.3
Std. Error		0.5		0.4	2.8			1.9	1.3		0.4		3.0
Female													
Sample Size					78			39	19		2		138
Percent					28.7			14.3	7.0		0.7		50.7
Std. Error					2.7			2.1	1.5		0.5		3.0
All Fish													
Sample Size		2		1	165			69	32		3		272
Percent		0.7		0.4	60.7			25.4	11.8		1.1		100.0
Std. Error		0.5		0.4	2.9			2.6	1.9		0.6		

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Appendix D.2. (Page 3 of 9).

	Brood Year and Age Class												
	1997	1996	1996	1995	1995	1995	1994	1994	1994	1993	1993	1993	
	0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2	Total
Statistical Week 28 (July 4 - 10)													
Male													
Sample Size		4			85			13	5				107
Percent		2.0			42.9			6.6	2.5				54.0
Std. Error		1.0			3.5			1.8	1.1				3.5
Female													
Sample Size					61			24	4		1	1	91
Percent					30.8			12.1	2.0		0.5	0.5	46.0
Std. Error					3.3			2.3	1.0		0.5	0.5	3.5
All Fish													
Sample Size		4			147			37	9		1	1	199
Percent		2.0			73.9			18.6	4.5		0.5	0.5	100.0
Std. Error		1.0			3.1			2.8	1.5		0.5	0.5	
Statistical Week 29 (July 11 - 17)													
Male													
Sample Size		11	2	1	101			23	3		1		172
Percent		5.7	0.7	0.3	44.1			7.7	1.0		0.3		57.9
Std. Error		1.1	0.5	0.3	3.9			1.9	0.6		0.3		3.8
Female													
Sample Size		2		3	80			36	3		1		125
Percent		0.3		1.0	26.9			12.1	1.0		0.3		42.1
Std. Error		0.5		0.6	2.6			1.9	0.6		0.3		2.8
All Fish													
Sample Size		13	2	4	211			59	6		2		297
Percent		4.4	0.7	1.3	71.0			19.9	2.0		0.7		100.0
Std. Error		1.2	0.5	0.7	2.6			2.3	0.8		0.5		

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	Brood Year and Age Class												
	1997	1996	1996	1995	1995	1995	1994	1994	1994	1993	1993	1993	
	0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2	Total
Statistical Week 30 (July 18 - 24)													
Male													
Sample Size		20	2		99			22	3	1			147
Percent		7.5	0.8		37.4			8.3	1.1	0.4			55.5
Std. Error		1.6	0.5		3.0			1.7	0.6	0.4			3.0
Female													
Sample Size		4		7	66			35	5		1		118
Percent		1.5		2.6	24.9			13.2	1.9		0.4		44.5
Std. Error		0.7		1.0	2.6			2.1	0.8		0.4		3.0
All Fish													
Sample Size		24	2	7	165			58	8	1	1		266
Percent		9.0	0.8	2.6	62.0			21.8	3.0	0.4	0.4		100.0
Std. Error		1.7	0.5	1.0	3.0			2.5	1.0	0.4	0.4		
Statistical Week 31 (July 25 - 31)													
Male													
Sample Size	1	22	6	4	66	2		32	7	1	4		147
Percent	0.4	9.2	2.5	1.7	28.3	0.8		13.3	2.9	0.4	1.7		61.3
Std. Error	0.4	1.9	1.0	0.8	2.9	0.6		2.2	1.1	0.4	0.8		3.1
Female													
Sample Size				5	44			33	10		1		93
Percent				2.1	18.3			13.8	4.2		0.4		38.8
Std. Error				0.9	2.5			2.2	1.3		0.4		3.1
All Fish													
Sample Size	1	22	6	9	110	2		65	17	1	5		240
Percent	0.4	9.2	2.5	3.8	46.7	0.8		27.1	7.1	0.4	2.1		100.0
Std. Error	0.4	1.9	1.0	1.2	3.2	0.6		2.9	1.6	0.4	0.9		

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	Brood Year and Age Class												
	1997	1996	1996	1995	1995	1995	1994	1994	1994	1993	1993	1993	
	0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2	Total
Statistical Week	32	(August 1 - 7)											
Male													
Sample Size	4	18	12	2	61	2		16	6	1			122
Percent	2.0	9.0	6.0	1.0	30.3	1.0		8.0	3.0	0.5			60.7
Std. Error	1.0	2.0	1.7	0.7	3.2	0.7		1.9	1.2	0.5			3.4
Female													
Sample Size		4		4	37			24	7		3		79
Percent		2.0		2.0	18.4			11.9	3.5		1.5		39.3
Std. Error		1.0		1.0	2.7			2.3	1.3		0.9		3.4
All Fish													
Sample Size	4	22	12	6	98	2		40	13	1	3		201
Percent	2.0	10.9	6.0	3.0	48.8	1.0		19.9	6.5	0.5	1.5		100.0
Std. Error	1.0	2.2	1.7	1.2	3.5	0.7		2.8	1.7	0.5	0.9		
Statistical Week	33	(August 8 - 14)											
Male													
Sample Size	6	13	15		43	4		5	12		2		100
Percent	3.2	6.9	7.9		22.8	2.1		2.6	6.3		1.1		52.9
Std. Error	1.3	1.8	2.0		3.0	1.0		1.2	1.8		0.7		3.6
Female													
Sample Size		2		3	20			30	28		6		89
Percent		1.1		1.6	10.6			15.9	14.8		3.2		47.1
Std. Error		0.7		0.9	2.2			2.7	2.6		1.3		3.6
All Fish													
Sample Size	6	15	15	3	63	4		35	40		8		189
Percent	3.2	7.9	7.9	1.6	33.3	2.1		18.5	21.2		4.2		100.0
Std. Error	1.3	2.0	2.0	0.9	3.4	1.0		2.8	3.0		1.5		

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	Brood Year and Age Class												
	1997	1996	1996	1995	1995	1995	1994	1994	1994	1993	1993	1993	
	0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2	Total
Statistical Week	34	(August 15 - 21)											
Male													
Sample Size	2	8	5		16	1		2	6		1		41
Percent	3.1	12.5	7.8		25.0	1.6		3.1	9.4		1.6		64.1
Std. Error	2.2	4.2	3.4		5.4	1.6		2.2	3.7		1.6		6.0
Female													
Sample Size		1		3	7			3	9				23
Percent		1.6		4.7	10.9			4.7	14.1				35.9
Std. Error		1.6		2.7	3.9			2.7	4.4				6.0
All Fish													
Sample Size	2	9	5	3	23	1		5	15		1		64
Percent	3.1	14.1	7.8	4.7	35.9	1.6		7.8	23.4		1.6		100.0
Std. Error	2.2	4.4	3.4	2.7	6.0	1.6		3.4	5.3		1.6		
Statistical Week	35	(August 22 - 28)											
Male													
Sample Size	8	6	13	1	25	3		9	4		2		71
Percent	6.1	4.6	9.9	0.8	19.1	2.3		6.9	3.1		1.5		54.2
Std. Error	2.1	1.8	2.6	0.8	3.4	1.3		2.2	1.5		1.1		4.4
Female													
Sample Size		1		4	15		1	21	11		5		60
Percent		0.8		3.1	11.5		0.8	16.0	8.9		3.8		45.8
Std. Error		0.8		1.5	2.8		0.8	3.2	2.6		1.7		4.4
All Fish													
Sample Size	8	7	13	5	40	3	1	30	15		7		131
Percent	6.1	5.3	9.9	3.8	30.5	2.3	0.8	22.9	13.0		5.3		100.0
Std. Error	2.1	2.0	2.6	1.7	4.0	1.3	0.8	3.7	2.9		2.0		

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	Brood Year and Age Class												
	1997	1996	1996	1995	1995	1995	1994	1994	1994	1993	1993	1993	
	0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2	Total
Statistical Week 36 (August 29 - Sept. 4)													
Male													
Sample Size			4		4	1		4	2		1		16
Percent			7.5		7.5	1.9		7.5	3.8		1.9		30.2
Std. Error			3.7		3.7	1.9		3.7	2.6		1.9		6.4
Female													
Sample Size				1	8			21	6		1		37
Percent				1.9	15.1			39.6	11.3		1.9		69.8
Std. Error				1.9	5.0			6.8	4.4		1.9		6.4
All Fish													
Sample Size			4	1	12	1		25	8		2		53
Percent			7.5	1.9	22.6	1.9		47.2	15.1		3.8		100.0
Std. Error			3.7	1.9	5.8	1.9		6.9	5.0		2.6		
Statistical Week 37 (Sept. 5 - 11)													
Male													
Sample Size			4		4	3		4	3				18
Percent			12.9		12.9	9.7		12.9	9.7				58.1
Std. Error			6.1		6.1	5.4		6.1	5.4				9.0
Female													
Sample Size					2			9	2				13
Percent					6.5			29.0	6.5				41.9
Std. Error					4.5			8.3	4.5				9.0
All Fish													
Sample Size			4		6	3		13	5				31
Percent			12.9		19.4	9.7		41.9	16.1				100.0
Std. Error			6.1		7.2	5.4		9.0	6.7				

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Appendix D.2. (Page 8 of 9).

	Brood Year and Age Class												
	1997	1996	1996	1995	1995	1995	1994	1994	1994	1993	1993	1993	
	0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2	Total
Statistical Week 38 (Sept. 12 - 18)													
Male													
Sample Size		1	1		3			6	3				14
Percent		3.7	3.7		11.1			22.2	11.1				51.9
Std. Error		3.7	3.7		6.2			8.1	6.2				9.8
Female													
Sample Size				1	6			5	1				13
Percent				3.7	22.2			18.5	3.7				48.1
Std. Error				3.7	8.1			7.6	3.7				9.8
All Fish													
Sample Size		1	1	1	9			11	4				27
Percent		3.7	3.7	3.7	33.3			40.7	14.8				100.0
Std. Error		3.7	3.7	3.7	9.2			9.6	7.0				
Statistical Week 39 (Sept. 19 - 25)													
Male													
Sample Size		1			1								2
Percent		14.3			14.3								28.6
Std. Error		14.3			14.3								18.4
Female													
Sample Size				1	1			2	1				5
Percent				14.3	14.3			28.6	14.3				71.4
Std. Error				14.3	14.3			18.4	14.3				18.4
All Fish													
Sample Size		1		1	2			2	1				7
Percent		14.3		14.3	28.6			28.6	14.3				100.0
Std. Error		14.3		14.3	18.4			18.4	14.3				

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	Brood Year and Age Class												
	1997	1996	1996	1995	1995	1995	1994	1994	1994	1993	1993	1993	
	0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2	Total
Statistical Week 40 (Sept. 26 - October 2)													
Male													
Sample Size			1						1				2
Percent			50.0						50.0				*100.0
Std. Error			50.0						50.0				0.0
Female													
Sample Size													0
Percent													0.0
Std. Error													0.0
All Fish													
Sample Size			1						1				2
Percent			50.0						50.0				100.0
Std. Error			50.0						50.0				
Combined Periods													
Male													
Sample Size	21	106	66	10	692	16		240	70	3	17		1,241
Percent	0.9	4.4	6.5	0.3	23.1	1.1		11.4	6.5	0.1	0.8		55.1
Std. Error	0.2	0.9	3.0	0.1	1.3	0.4		0.9	3.0	<0.1	0.2		1.6
Female													
Sample Size		14		32	476		1	360	110		24	1	1,018
Percent		0.4		2.2	16.8		<0.1	18.9	5.6		0.9	<0.1	44.9
Std. Error		0.1		0.9	1.2		<0.1	1.5	1.0		0.2	<0.1	1.6
All Fish													
Sample Size	21	120	66	42	1,169	16	1	601	180	3	41	1	2,261
Percent	0.9	4.8	6.5	2.5	39.9	1.1	<0.1	30.3	12.1	0.1	1.7	<0.1	100.0
Std. Error	0.2	0.9	3.0	0.9	1.6	0.4	<0.1	1.6	3.2	<0.1	0.3	<0.1	

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Appendix D.3. Age composition of sockeye salmon in the Canyon Island, Taku River, fish wheels by sex and fishing period, 2000.

	Brood Year and Age Class										
	1998	1997	1997	1996	1996	1996	1995	1995	1994	1994	
	0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Statistical Week 23 (May 28 - June 3)											
Male											
Sample Size							1				1
Percent							25.0				25.0
Std. Error							25.0				25.0
Female											
Sample Size							3				3
Percent							75.0				75.0
Std. Error							25.0				25.0
All Fish											
Sample Size							4				4
Percent							100.0				100.0
Std. Error											
Statistical Week 24 (June 4 - 10)											
Male											
Sample Size					1		50	1			52
Percent					0.8		39.1	0.8			40.6
Std. Error					0.8		4.3	0.8			4.3
Female											
Sample Size				1	3		72				76
Percent				0.8	2.3		56.3				59.4
Std. Error				0.8	1.3		4.4				4.3
All Fish											
Sample Size				1	4		122	1			128
Percent				0.8	3.1		95.3	0.8			100.0
Std. Error				0.8	1.5		1.9	0.8			

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	Brood Year and Age Class										
	1998	1997	1997	1996	1996	1996	1995	1995	1994	1994	
	0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Statistical Week 25 (June 11 - 17)											
Male											
Sample Size				1	4		53				58
Percent				0.5	2.1		27.5				30.1
Std. Error				0.5	1.0		3.2				3.3
Female											
Sample Size				1	9		125				135
Percent				0.5	4.7		64.8				69.9
Std. Error				0.5	1.5		3.4				3.3
All Fish											
Sample Size				2	13		178				193
Percent				1.0	6.7		92.2				100.0
Std. Error				0.7	1.8		1.9				
Statistical Week 26 (June 18 - 24)											
Male											
Sample Size		2			32		77		1	2	114
Percent		0.8			13.4		32.2		0.4	0.8	47.7
Std. Error		0.6			2.2		3.0		0.4	0.6	3.2
Female											
Sample Size				1	41		77	4		2	125
Percent				0.4	17.2		32.2	1.7		0.8	52.3
Std. Error				0.4	2.4		3.0	0.8		0.6	3.2
All Fish											
Sample Size		2		1	73		154	4	1	4	239
Percent		0.8		0.4	30.5		64.4	1.7	0.4	1.7	100.0
Std. Error		0.6		0.4	3.0		3.1	0.8	0.4	0.8	

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	Brood Year and Age Class										
	1998	1997	1997	1996	1996	1996	1995	1995	1994	1994	
	0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Statistical Week 27 (June 25 - July 1)											
Male											
Sample Size		5		1	45		51	6		2	110
Percent		2.2		0.4	19.6		22.2	2.6		0.9	47.8
Std. Error		1.0		0.4	2.6		2.7	1.0		0.6	3.3
Female											
Sample Size		1			53		56	4		6	120
Percent		0.4			23.0		24.3	1.7		2.6	52.2
Std. Error		0.4			2.8		2.8	0.9		1.0	3.3
All Fish											
Sample Size		6		1	98		107	10		8	230
Percent		2.6		0.4	42.6		46.5	4.3		3.5	100.0
Std. Error		1.0		0.4	3.2		3.3	1.3		1.2	
Statistical Week 28 (July 2 - 8)											
Male											
Sample Size		12		1	51		51	3		5	123
Percent		5.5		0.5	23.4		23.4	1.4		2.3	56.4
Std. Error		1.5		0.5	2.9		2.9	0.8		1.0	3.3
Female											
Sample Size		3		6	30		50	1		5	95
Percent		1.4		2.8	13.8		22.9	0.5		2.3	43.6
Std. Error		0.8		1.1	2.3		2.8	0.5		1.0	3.3
All Fish											
Sample Size		15		7	81		101	4		10	218
Percent		6.9		3.2	37.2		46.3	1.8		4.6	100.0
Std. Error		1.7		1.2	3.3		3.4	0.9		1.4	

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Appendix D.3. (Page 4 of 8).

	Brood Year and Age Class										
	1998	1997	1997	1996	1996	1996	1995	1995	1994	1994	
	0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Statistical Week	29	(July 9 - 15)									
Male											
Sample Size		17	2	8	67		42	3		3	142
Percent		7.6	0.9	3.6	29.8		18.7	1.3		1.3	63.1
Std. Error		1.8	0.6	1.2	3.0		2.6	0.8		0.8	3.2
Female											
Sample Size		3		4	20		48	3		5	83
Percent		1.3		1.8	8.9		21.3	1.3		2.2	36.9
Std. Error		0.8		0.9	1.9		2.7	0.8		1.0	3.2
All Fish											
Sample Size		20	2	12	87		90	6		8	225
Percent		8.9	0.9	5.3	38.7		40.0	2.7		3.6	100.0
Std. Error		1.9	0.6	1.5	3.2		3.3	1.1		1.2	
Statistical Week	30	(July 16 - 22)									
Male											
Sample Size		27	2	11	52		20	3	1	2	118
Percent		12.0	0.9	4.9	23.1		8.9	1.3	0.4	0.9	52.4
Std. Error		2.2	0.6	1.4	2.8		1.9	0.8	0.4	0.6	3.3
Female											
Sample Size		6		22	34		37	5		3	107
Percent		2.7		9.8	15.1		16.4	2.2		1.3	47.6
Std. Error		1.1		2.0	2.4		2.5	1.0		0.8	3.3
All Fish											
Sample Size		33	2	34	86		57	8	1	5	226
Percent		14.6	0.9	15.0	38.1		25.2	3.5	0.4	2.2	100.0
Std. Error		2.3	0.6	2.4	3.2		2.9	1.2	0.4	1.0	

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Appendix D.3. (Page 5 of 8).

	Brood Year and Age Class										
	1998	1997	1997	1996	1996	1996	1995	1995	1994	1994	
	0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Statistical Week	31	(July 23 - 29)									
Male											
Sample Size		14	2	6	27		14	2			65
Percent		9.5	1.4	4.1	18.4		9.5	1.4			44.2
Std. Error		2.4	1.0	1.6	3.2		2.4	1.0			4.1
Female											
Sample Size		3		14	39		17	9			82
Percent		2.0		9.5	26.5		11.6	6.1			55.8
Std. Error		1.2		2.4	3.6		2.6	2.0			4.1
All Fish											
Sample Size		17	2	20	66		32	11			148
Percent		11.5	1.4	13.5	44.6		21.6	7.4			100.0
Std. Error		2.6	0.9	2.8	4.1		3.4	2.2			
Statistical Week	32	(July 30 - August 5)									
Male											
Sample Size	1	18	5	17	31		18	1		2	93
Percent	0.5	9.2	2.6	8.7	15.9		9.2	0.5		1.0	47.7
Std. Error	0.5	2.1	1.1	2.0	2.6		2.1	0.5		0.7	3.6
Female											
Sample Size		6		32	30		26	6	1	1	102
Percent		3.1		16.4	15.4		13.3	3.1	0.5	0.5	52.3
Std. Error		1.2		2.6	2.6		2.4	1.2	0.5	0.5	3.6
All Fish											
Sample Size	1	24	5	49	61		44	7	1	3	195
Percent	0.5	12.3	2.6	25.1	31.3		22.6	3.6	0.5	1.5	100.0
Std. Error	0.5	2.3	1.1	3.1	3.3		3.0	1.3	0.5	0.9	

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Appendix D.3. (Page 6 of 8).

	Brood Year and Age Class										
	1998	1997	1997	1996	1996	1996	1995	1995	1994	1994	
	0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Statistical Week	33	(August 6 - 12)									
Male											
Sample Size		13	5	8	40		7	8		2	83
Percent		6.3	2.4	3.9	19.3		3.4	3.9		1.0	40.1
Std. Error		1.7	1.1	1.3	2.7		1.3	1.3		0.7	3.4
Female											
Sample Size		4		29	55		22	13		1	124
Percent		1.9		14.0	26.6		10.6	6.3		0.5	59.9
Std. Error		1.0		2.4	3.1		2.1	1.7		0.5	3.4
All Fish											
Sample Size		17	5	37	95		29	21		3	207
Percent		8.2	2.4	17.9	45.9		14.0	10.1		1.4	100.0
Std. Error		1.9	1.1	2.7	3.5		2.4	2.1		0.8	
Statistical Week	34	(August 13 - 19)									
Male											
Sample Size		8	5	12	35	1	10	6		1	78
Percent		4.7	2.9	7.0	20.3	0.6	5.8	3.5		0.6	45.3
Std. Error		1.6	1.3	1.9	3.1	0.6	1.8	1.4		0.6	3.8
Female											
Sample Size		1		12	48		15	17		1	94
Percent		0.6		7.0	27.9		8.7	9.9		0.6	54.7
Std. Error		0.6		1.9	3.4		2.1	2.3		0.6	3.8
All Fish											
Sample Size		9	5	24	84	2	25	23		2	174
Percent		5.2	2.9	13.8	48.3	1.1	14.4	13.2		1.1	100.0
Std. Error		1.7	1.3	2.6	3.8	0.8	2.7	2.6		0.8	

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Appendix D.3. (Page 7of 8).

	Brood Year and Age Class										
	1998	1997	1997	1996	1996	1996	1995	1995	1994	1994	
	0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Statistical Week	35	(August 20 - 26)									
Male											
Sample Size		1	3	3	8	2	7	2		2	28
Percent		1.1	3.4	3.4	9.1	2.3	8.0	2.3		2.3	31.8
Std. Error		1.1	1.9	1.9	3.1	1.6	2.9	1.6		1.6	5.0
Female											
Sample Size		1		6	26		17	9		1	60
Percent		1.1		6.8	29.5		19.3	10.2		1.1	68.2
Std. Error		1.1		2.7	4.9		4.2	3.2		1.1	5.0
All Fish											
Sample Size		2	3	9	34	2	24	11		3	88
Percent		2.3	3.4	10.2	38.6	2.3	27.3	12.5		3.4	100.0
Std. Error		1.6	1.9	3.2	5.2	1.6	4.8	3.5		1.9	
Statistical Week	36	(August 27 - Sept. 2)									
Male											
Sample Size			4	2	4		3				13
Percent			13.3	6.7	13.3		10.0				43.3
Std. Error			6.3	4.6	6.3		5.6				9.2
Female											
Sample Size					9		6	1		1	17
Percent					30.0		20.0	3.3		3.3	56.7
Std. Error					8.5		7.4	3.3		3.3	9.2
All Fish											
Sample Size			4	2	13		9	1		1	30
Percent			13.3	6.7	43.3		30.0	3.3		3.3	100.0
Std. Error			6.3	4.6	9.2		8.5	3.3		3.3	

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Appendix D.3. (Page 8 of 8).

	Brood Year and Age Class										
	1998	1997	1997	1996	1996	1996	1995	1995	1994	1994	
	0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Combined Periods											
Male											
Sample Size	1	117	28	70	397	3	404	35	2	21	1,078
Percent	<0.1	4.2	2.0	3.1	14.9	0.2	17.4	1.4	0.1	0.8	44.0
Std. Error	<0.1	0.4	0.5	0.5	0.8	0.1	1.9	0.2	<0.1	0.2	2.1
Female											
Sample Size		28		128	397		571	72	1	26	1,223
Percent		1.0		5.0	17.2		28.4	3.3	<0.1	1.1	56.0
Std. Error		0.2		0.4	0.9		2.0	0.4	<0.1	0.3	2.1
All Fish											
Sample Size	1	145	28	199	795	4	976	107	3	47	2,305
Percent	<0.1	5.2	2.0	8.1	32.1	0.2	45.7	4.6	0.1	1.9	100.0
Std. Error	<0.1	0.4	0.5	0.6	1.1	0.1	1.0	0.5	0.1	0.3	

Appendix D.4. Age composition of sockeye salmon in the Canyon Island, Taku River, fish wheels by sex and fishing period, 2001

	Brood Year and Age Class											
	1999	1998	1998	1997	1997	1997	1996	1996	1996	1995	1995	
	0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
Statistical Weeks 22 - 23 (May 27 - June 9)												
Male												
Sample Size				1			1	14				16
Percent				2.8			2.8	38.9				44.4
Std. Error				2.8			2.8	8.2				8.4
Female												
Sample Size								19		1		20
Percent								52.8		2.8		55.6
Std. Error								8.4		2.8		8.4
All Fish												
Sample Size				1			1	33		1		36
Percent				2.8			2.8	91.7		2.8		100.0
Std. Error				2.8			2.8	4.7		2.8		
Statistical Week 24 (June 10 - 16)												
Male												
Sample Size				1	6			30				37
Percent				1.0	6.3			31.3				38.5
Std. Error				1.0	2.5			4.7				5.0
Female												
Sample Size				1	6			44		1	7	59
Percent				1.0	6.3			45.8		1.0	7.3	61.5
Std. Error				1.0	2.5			5.1		1.0	2.7	5.0
All Fish												
Sample Size				2	12			74		1	7	96
Percent				2.1	12.5			77.1		1.0	7.3	100.0
Std. Error				1.5	3.4			4.3		1.0	2.7	

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Appendix D.4. (Page 2 of 8).

	Brood Year and Age Class											
	1999	1998	1998	1997	1997	1997	1996	1996	1996	1995	1995	
	0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
Statistical Week 25 (June 17 - 23)												
Male												
Sample Size				3	20			52		1		76
Percent				1.6	10.8			28.0		0.5		40.9
Std. Error				0.9	2.3			3.3		0.5		3.6
Female												
Sample Size				1	30			78	1			110
Percent				0.5	16.1			41.9	0.5			59.1
Std. Error				0.5	2.7			3.6	0.5			3.6
All Fish												
Sample Size				4	50			131	1	1		187
Percent				2.1	26.7			70.1	0.5	0.5		100.0
Std. Error				1.1	3.2			3.3	0.5	0.5		
Statistical Week 26 (June 24 - 30)												
Male												
Sample Size		2	1	10	40			62	1		1	117
Percent		0.8	0.4	4.2	16.9			26.3	0.4		0.4	49.6
Std. Error		0.6	0.4	1.3	2.4			2.9	0.4		0.4	3.2
Female												
Sample Size				2	69			42	3		3	119
Percent				0.8	29.2			17.8	1.3		1.3	50.4
Std. Error				0.6	2.9			2.5	0.7		0.7	3.2
All Fish												
Sample Size		2	1	12	109			105	4		4	237
Percent		0.8	0.4	5.1	46.0			44.3	1.7		1.7	100.0
Std. Error		0.6	0.4	1.4	3.2			3.2	0.8		0.8	

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	Brood Year and Age Class											
	1999	1998	1998	1997	1997	1997	1996	1996	1996	1995	1995	
	0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
Statistical Week	27	(July 1 - July 7)										
Male												
Sample Size	1	4	9	9	44			52			2	121
Percent	0.5	1.9	4.2	4.2	20.8			24.5			0.9	57.1
Std. Error	0.5	0.9	1.4	1.4	2.8			2.9			0.7	3.4
Female												
Sample Size				3	40			41	6		1	91
Percent				1.4	18.9			19.3	2.8		0.5	42.9
Std. Error				0.8	2.7			2.7	1.1		0.5	3.4
All Fish												
Sample Size	1	4	9	12	85			93	6		3	213
Percent	0.5	1.9	4.2	5.6	39.9			43.7	2.8		1.4	100.0
Std. Error	0.5	0.9	1.4	1.6	3.3			3.4	1.1		0.8	
Statistical Week	28	(July 8 - 14)										
Male												
Sample Size	1	4	13	10	33			45	1			107
Percent	0.5	1.9	6.0	4.7	15.3			20.9	0.5			49.8
Std. Error	0.5	0.9	1.6	1.4	2.5			2.8	0.5			3.4
Female												
Sample Size		2		13	26			63	1		3	108
Percent		0.9		6.0	12.1			29.3	0.5		1.4	50.2
Std. Error		0.7		1.6	2.2			3.1	0.5		0.8	3.4
All Fish												
Sample Size	1	7	13	23	59			108	2		3	216
Percent	0.5	3.2	6.0	10.6	27.3			50.0	0.9		1.4	100.0
Std. Error	0.5	1.2	1.6	2.1	3.0			3.4	0.6		0.8	

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Appendix D.4. (Page 4 of 8).

	Brood Year and Age Class											
	1999	1998	1998	1997	1997	1997	1996	1996	1996	1995	1995	
	0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
Statistical Week	29	(July 15 - 21)										
Male												
Sample Size	2	10	17	16	37	2		57	2			143
Percent	0.8	3.9	6.6	6.3	14.5	0.8		22.3	0.8			55.9
Std. Error	0.5	1.2	1.5	1.5	2.2	0.5		2.6	0.5			3.1
Female												
Sample Size				28	9			74	2			113
Percent				10.9	3.5			28.9	0.8			44.1
Std. Error				1.9	1.1			2.8	0.5			3.1
All Fish												
Sample Size	2	10	17	44	46	2		131	4			256
Percent	0.8	3.9	6.6	17.2	18.0	0.8		51.2	1.6			100.0
Std. Error	0.5	1.2	1.5	2.3	2.4	0.5		3.1	0.8			
Statistical Week	30	(July 22 - 28)										
Male												
Sample Size	3	6	21	16	17	2		54			2	121
Percent	1.3	2.7	9.3	7.1	7.5	0.9		23.9			0.9	53.5
Std. Error	0.8	1.1	1.9	1.7	1.7	0.6		2.8			0.6	3.3
Female												
Sample Size				19	11			71	1		3	105
Percent				8.4	4.9			31.4	0.4		1.3	46.5
Std. Error				1.8	1.4			3.1	0.4		0.8	3.3
All Fish												
Sample Size	3	6	21	35	28	2		125	1		5	226
Percent	1.3	2.7	9.3	15.5	12.4	0.9		55.3	0.4		2.2	100.0
Std. Error	0.8	1.1	1.9	2.4	2.2	0.6		3.3	0.4		1.0	

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	Brood Year and Age Class											
	1999	1998	1998	1997	1997	1997	1996	1996	1996	1995	1995	
	0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
Statistical Week	31	(July 29 - August 4)										
Male												
Sample Size		5	25	18	6	2		49	4			109
Percent		2.5	12.4	8.9	3.0	1.0		24.3	2.0			54.0
Std. Error		1.1	2.3	2.0	1.2	0.7		3.0	1.0			3.5
Female												
Sample Size		3		26	4			56	2		2	93
Percent		1.5		12.9	2.0			27.7	1.0		1.0	46.0
Std. Error		0.8		2.4	1.0			3.1	0.7		0.7	3.5
All Fish												
Sample Size		8	25	44	10	2		105	6		2	202
Percent		4.0	12.4	21.8	5.0	1.0		52.0	3.0		1.0	100.0
Std. Error		1.4	2.3	2.9	1.5	0.7		3.5	1.2		0.7	
Statistical Week	32	(August 5 - 11)										
Male												
Sample Size	2	4	13	3	8			56	1		2	89
Percent	1.4	2.7	8.8	2.0	5.4			38.1	0.7		1.4	60.5
Std. Error	1.0	1.3	2.3	1.2	1.9			4.0	0.7		1.0	4.0
Female												
Sample Size				8	8			41	1			58
Percent				5.4	5.4			27.9	0.7			39.5
Std. Error				1.9	1.9			3.7	0.7			4.0
All Fish												
Sample Size	2	4	13	11	17			97	2		2	148
Percent	1.4	2.7	8.8	7.4	11.5			65.5	1.4		1.4	100.0
Std. Error	0.9	1.3	2.3	2.2	2.6			3.9	0.9		0.9	

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Appendix D.4. (Page 6 of 8).

	Brood Year and Age Class											
	1999	1998	1998	1997	1997	1997	1996	1996	1996	1995	1995	
	0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
Statistical Week	33	(August 12 - 18)										
Male												
Sample Size		2	30	6	3			37	5		3	86
Percent		1.3	19.5	3.9	1.9			24.0	3.2		1.9	55.8
Std. Error		0.9	3.2	1.6	1.1			3.4	1.4		1.1	4.0
Female												
Sample Size				6	9			44	8		1	68
Percent				3.9	5.8			28.6	5.2		0.6	44.2
Std. Error				1.6	1.9			3.6	1.8		0.6	4.0
All Fish												
Sample Size		2	30	12	12			81	13		4	154
Percent		1.3	19.5	7.8	7.8			52.6	8.4		2.6	100.0
Std. Error		0.9	3.2	2.2	2.2			4.0	2.2		1.3	
Statistical Week	34	(August 19 - 25)										
Male												
Sample Size		1	27	1	6			20				55
Percent		1.0	28.1	1.0	6.3			20.8				57.3
Std. Error		1.0	4.6	1.0	2.5			4.2				5.1
Female												
Sample Size				3	15			21	2			41
Percent				3.1	15.6			21.9	2.1			42.7
Std. Error				1.8	3.7			4.2	1.5			5.1
All Fish												
Sample Size		1	27	4	21			41	2			96
Percent		1.0	28.1	4.2	21.9			42.7	2.1			100.0
Std. Error		1.0	4.6	2.0	4.2			5.1	1.5			

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Appendix D.4. (Page 7 of 8).

	Brood Year and Age Class											
	1999	1998	1998	1997	1997	1997	1996	1996	1996	1995	1995	
	0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
Statistical Week	35	(August 26 - Sept 1)										
Male												
Sample Size		3	13	1	1	1		8				27
Percent		6.1	26.5	2.0	2.0	2.0		16.3				55.1
Std. Error		3.5	6.4	2.0	2.0	2.0		5.3				7.2
Female												
Sample Size		1		1	5			13	2			22
Percent		2.0		2.0	10.2			26.5	4.1			44.9
Std. Error		2.0		2.0	4.4			6.4	2.9			7.2
All Fish												
Sample Size		4	13	2	6	1		21	2			49
Percent		8.2	26.5	4.1	12.2	2.0		42.9	4.1			100.0
Std. Error		3.9	6.4	2.9	4.7	2.0		7.1	2.9			
Statistical Week	36	(Sept. 2 - Sept. 8)										
Male												
Sample Size	1		8		2			2	1			14
Percent	4.0		32.0		8.0			8.0	4.0			56.0
Std. Error	4.0		9.5		5.5			5.5	4.0			10.1
Female												
Sample Size				2	3			5			1	11
Percent				8.0	12.0			20.0			4.0	44.0
Std. Error				5.5	6.6			8.2			4.0	10.1
All Fish												
Sample Size	1		8	2	5			7	1		1	25
Percent	4.0		32.0	8.0	20.0			28.0	4.0		4.0	100.0
Std. Error	4.0		9.5	5.5	8.2			9.2	4.0		4.0	

- continued -

Appendix D.4. (Page 8 of 8).

	Brood Year and Age Class											
	1999	1998	1998	1997	1997	1997	1996	1996	1996	1995	1995	
	0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
Statistical Week	37	(Sept. 9 - 15)										
Male												
Sample Size			2					2				4
Percent			50.0					50.0				%100.0
Std. Error			28.9					28.9				0.0
Female												
Sample Size												0
Percent												0.0
Std. Error												0.0
All Fish												
Sample Size			2					2				4
Percent			50.0					50.0				100.0
Std. Error			28.9					28.9				
Combined Periods												
Male												
Sample Size	10	41	179	95	223	7	1	540	15	1	10	1,122
Percent	0.6	1.7	13.6	3.3	7.9	0.3	0.2	26.5	0.8	<0.1	0.4	55.2
Std. Error	0.3	0.3	2.1	0.4	0.6	0.2	0.2	2.2	0.3	<0.1	0.1	1.3
Female												
Sample Size		6		113	235			612	29	2	21	1,018
Percent		0.3		4.3	9.5			28.0	1.3	0.3	1.2	44.8
Std. Error		0.2		0.5	0.7			1.2	0.3	0.2	0.3	1.3
All Fish												
Sample Size	10	48	179	208	460	7	1	1,154	44	3	31	2,145
Percent	0.6	2.0	13.6	7.6	17.4	0.3	0.2	54.5	2.1	0.3	1.5	100.0
Std. Error	0.3	0.3	2.1	0.6	0.9	0.2	0.2	2.3	0.4	0.2	0.4	

Appendix D.5. Age composition of sockeye salmon in the Canyon Island, Taku River, fish wheels by sex and fishing period, 2002

	Brood Year and Age Class											
	2000	1999	1999	1998	1998	1998	1997	1997	1997	1996	1996	
	0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
Statistical Week 22 (May 26 - June 1)												
Male												
Sample Size								5				5
Percent								71.4				71.4
Std. Error								18.4				18.4
Female												
Sample Size								2				2
Percent								28.6				28.6
Std. Error								18.4				18.4
All Fish												
Sample Size								7				7
Percent								100.0				100.0
Std. Error												
Statistical Week 23 (June 2 - 8)												
Male												
Sample Size								45				45
Percent								57.0				57.0
Std. Error								5.6				5.6
Female												
Sample Size								34				34
Percent								43.0				43.0
Std. Error								5.6				5.6
All Fish												
Sample Size								80				80
Percent								%100.0				100.0
Std. Error												

- continued -

	Brood Year and Age Class											
	2000	1999	1999	1998	1998	1998	1997	1997	1997	1996	1996	
	0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
Statistical Week 24 (June 9 - 15)												
Male												
Sample Size				2	45			163			1	211
Percent				0.5	10.3			37.2			0.2	48.2
Std. Error				0.3	1.4			2.3			0.2	2.4
Female												
Sample Size					33			191	2		1	227
Percent					7.5			43.6	0.5		0.2	51.8
Std. Error					1.2			2.3	0.3		0.2	2.4
All Fish												
Sample Size				2	78			356	2		2	440
Percent				0.5	17.7			80.9	0.5		0.5	100.0
Std. Error				0.3	1.8			1.9	0.3		0.3	
Statistical Week 25 (June 16 - 22)												
Male												
Sample Size		8		2	54			58	1			123
Percent		3.5		0.9	23.8			25.6	0.4			54.2
Std. Error		1.2		0.6	2.8			2.9	0.4			3.3
Female												
Sample Size				1	42			57	3		1	104
Percent				0.4	18.5			25.1	1.3		0.4	45.8
Std. Error				0.4	2.6			2.9	0.8		0.4	3.3
All Fish												
Sample Size		8		3	96			115	4		1	227
Percent		3.5		1.3	42.3			50.7	1.8		0.4	100.0
Std. Error		1.2		0.8	3.3			3.3	0.9		0.4	

- continued -

	Brood Year and Age Class											
	2000	1999	1999	1998	1998	1998	1997	1997	1997	1996	1996	
	0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
Statistical Week	26	(June 23 - 29)										
Male												
Sample Size	1	13		1	75		1	48			1	140
Percent	0.4	5.2		0.4	29.9		0.4	19.1			0.4	55.8
Std. Error	0.4	1.4		0.4	2.9		0.4	2.5			0.4	3.1
Female												
Sample Size				2	67			35	5	1	1	111
Percent				0.8	26.7			13.9	2.0	0.4	0.4	44.2
Std. Error				0.6	2.8			2.2	0.9	0.4	0.4	3.1
All Fish												
Sample Size	1	13		3	143		1	83	5	1	2	252
Percent	0.4	5.2		1.2	56.7		0.4	32.9	2.0	0.4	0.8	100.0
Std. Error	0.4	1.4		0.7	3.1		0.4	2.9	0.9	0.4	0.6	
Statistical Week	27	(June 30 - July 6)										
Male												
Sample Size		18	1	2	71			31	1	1		125
Percent		8.3	0.5	0.9	32.7			14.3	0.5	0.5		57.6
Std. Error		1.9	0.5	0.6	3.2			2.4	0.5	0.5		3.3
Female												
Sample Size				2	40		1	49				92
Percent				0.9	18.4		0.5	22.6				42.4
Std. Error				0.6	2.6		0.5	2.8				3.3
All Fish												
Sample Size		18	1	4	111		1	81	1	1		218
Percent		8.3	0.5	1.8	50.9		0.5	37.2	0.5	0.5		100.0
Std. Error		1.9	0.5	0.9	3.4		0.5	3.3	0.5	0.5		

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	Brood Year and Age Class											
	2000	1999	1999	1998	1998	1998	1997	1997	1997	1996	1996	
	0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
Statistical Week	28	(July 7 - 13)										
Male												
Sample Size		28		3	94			23	2			150
Percent		12.0		1.3	40.3			9.9	0.9			64.4
Std. Error		2.1		0.7	3.2			1.9	0.6			3.1
Female												
Sample Size		1		5	40		1	34		1	1	83
Percent		0.4		2.1	17.2		0.4	14.6		0.4	0.4	35.6
Std. Error		0.4		0.9	2.5		0.4	2.3		0.4	0.4	3.1
All Fish												
Sample Size		29		8	134		1	57	2	1	1	233
Percent		12.4		3.4	57.5		0.4	24.5	0.9	0.4	0.4	100.0
Std. Error		2.2		1.2	3.2		0.4	2.8	0.6	0.4	0.4	
Statistical Week	29	(July 14 - 20)										
Male												
Sample Size		37	8		101			14	2		1	163
Percent		16.3	3.5		44.5			6.2	0.9		0.4	71.8
Std. Error		2.4	1.2		3.3			1.6	0.6		0.4	3.0
Female												
Sample Size		3		4	31			22	3		1	64
Percent		1.3		1.8	13.7			9.7	1.3		0.4	28.2
Std. Error		0.8		0.9	2.3			2.0	0.8		0.4	3.0
All Fish												
Sample Size		40	8	4	132			36	5		2	227
Percent		17.6	3.5	1.8	58.1			15.9	2.2		0.9	100.0
Std. Error		2.5	1.2	0.9	3.3			2.4	1.0		0.6	

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	Brood Year and Age Class											
	2000	1999	1999	1998	1998	1998	1997	1997	1997	1996	1996	
	0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
Statistical Week	30	(July 21 - 27)										
Male												
Sample Size	1	30	8	2	56			25	5	1	4	132
Percent	0.5	15.4	4.1	1.0	28.7			12.8	2.6	0.5	2.1	67.7
Std. Error	0.5	2.6	1.4	0.7	3.2			2.4	1.1	0.5	1.0	3.3
Female												
Sample Size		2		6	19		1	29	3		3	63
Percent		1.0		3.1	9.7		0.5	14.9	1.5		1.5	32.3
Std. Error		0.7		1.2	2.1		0.5	2.5	0.9		0.9	3.3
All Fish												
Sample Size	1	32	8	8	75		1	54	8	1	7	195
Percent	0.5	16.4	4.1	4.1	38.5		0.5	27.7	4.1	0.5	3.6	100.0
Std. Error	0.5	2.6	1.4	1.4	3.5		0.5	3.2	1.4	0.5	1.3	
Statistical Week	31	(July 28 - August 3)										
Male												
Sample Size	3	31	10		40			38	3		5	130
Percent	1.4	14.2	4.6		18.3			17.4	1.4		2.3	59.6
Std. Error	0.8	2.4	1.4		2.6			2.6	0.8		1.0	3.3
Female												
Sample Size				15	14			47	1	3	8	88
Percent				6.9	6.4			21.6	0.5	1.4	3.7	40.4
Std. Error				1.7	1.7			2.8	0.5	0.8	1.3	3.3
All Fish												
Sample Size	3	31	10	15	54			86	4	3	13	219
Percent	1.4	14.2	4.6	6.8	24.7			39.3	1.8	1.4	5.9	100.0
Std. Error	0.8	2.3	1.4	1.7	2.9			3.3	0.9	0.8	1.6	

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	Brood Year and Age Class											
	2000	1999	1999	1998	1998	1998	1997	1997	1997	1996	1996	
	0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
Statistical Week	32	(August 4 - 10)										
Male												
Sample Size	2	26	16	1	26			22	4		1	98
Percent	1.3	17.2	10.6	0.7	17.2			14.6	2.6		0.7	64.9
Std. Error	0.9	3.1	2.5	0.7	3.1			2.9	1.3		0.7	3.9
Female												
Sample Size		1		5	8			31	2	1	5	53
Percent		0.7		3.3	5.3			20.5	1.3	0.7	3.3	35.1
Std. Error		0.7		1.5	1.8			3.3	0.9	0.7	1.5	3.9
All Fish												
Sample Size	2	27	16	6	34			53	6	1	6	151
Percent	1.3	17.9	10.6	4.0	22.5			35.1	4.0	0.7	4.0	100.0
Std. Error	0.9	3.1	2.5	1.6	3.4			3.9	1.6	0.7	1.6	
Statistical Week	33	(August 11 - 17)										
Male												
Sample Size		6	3		5			6	1		1	22
Percent		17.1	8.6		14.3			17.1	2.9		2.9	62.9
Std. Error		6.5	4.8		6.0			6.5	2.9		2.9	8.3
Female												
Sample Size				1	3			6	3			13
Percent				2.9	8.6			17.1	8.6			37.1
Std. Error				2.9	4.8			6.5	4.8			8.3
All Fish												
Sample Size		6	3	1	8			13	4		1	36
Percent		16.7	8.3	2.8	22.2			36.1	11.1		2.8	100.0
Std. Error		6.3	4.7	2.8	7.0			8.1	5.3		2.8	

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	Brood Year and Age Class											
	2000	1999	1999	1998	1998	1998	1997	1997	1997	1996	1996	
	0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
Statistical Week	34	(August 18 - 24)										
Male												
Sample Size	1	11	10	1	16	1		10	4	1	1	56
Percent	1.2	12.8	11.6	1.2	18.6	1.2		11.6	4.7	1.2	1.2	65.1
Std. Error	1.2	3.6	3.5	1.2	4.2	1.2		3.5	2.3	1.2	1.2	5.2
Female												
Sample Size		1		3	5			18	1		2	30
Percent		1.2		3.5	5.8			20.9	1.2		2.3	34.9
Std. Error		1.2		2.0	2.5			4.4	1.2		1.6	5.2
All Fish												
Sample Size	1	12	10	5	21	1		28	5	1	3	87
Percent	1.1	13.8	11.5	5.7	24.1	1.1		32.2	5.7	1.1	3.4	100.0
Std. Error	1.1	3.7	3.4	2.5	4.6	1.1		5.0	2.5	1.1	2.0	
Statistical Week	35	(August 25 - 31)										
Male												
Sample Size			5		10			8			1	24
Percent			9.8		19.6			15.7			2.0	47.1
Std. Error			4.2		5.6			5.1			2.0	7.0
Female												
Sample Size				1	8			12	4		2	27
Percent				2.0	15.7			23.5	7.8		3.9	52.9
Std. Error				2.0	5.1			6.0	3.8		2.7	7.0
All Fish												
Sample Size			5	1	18			20	4		3	51
Percent			9.8	2.0	35.3			39.2	7.8		5.9	100.0
Std. Error			4.2	2.0	6.7			6.9	3.8		3.3	

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	Brood Year and Age Class											
	2000	1999	1999	1998	1998	1998	1997	1997	1997	1996	1996	
	0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
Statistical Week	36	(Sept 1 - 7)										
Male												
Sample Size		3	7	3	6			4				23
Percent		9.1	21.2	9.1	18.2			12.1				69.7
Std. Error		5.1	7.2	5.1	6.8			5.8				8.1
Female												
Sample Size				1	2			7				10
Percent				3.0	6.1			21.2				30.3
Std. Error				3.0	4.2			7.2				8.1
All Fish												
Sample Size		3	7	4	8			11				33
Percent		9.1	21.2	12.1	24.2			33.3				100.0
Std. Error		5.1	7.2	5.8	7.6			8.3				
Statistical Week	37	(Sept. 8 - 14)										
Male												
Sample Size			2	1								3
Percent			50.0	25.0								75.0
Std. Error			28.9	25.0								25.0
Female												
Sample Size					1							1
Percent					25.0							25.0
Std. Error					25.0							25.0
All Fish												
Sample Size			2	1	1							4
Percent			50.0	25.0	25.0							100.0
Std. Error			28.9	25.0	25.0							

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Appendix D.5. (Page 9 of 9).

	Brood Year and Age Class										
	2000	1999	1999	1998	1998	1998	1997	1997	1997	1996	1996	Total
	0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	
Combined Periods												
Male												
Sample Size	8	211	70	18	599	1	1	500	23	3	16	1,450
Percent	0.3	8.2	7.8	2.6	19.8	0.1	<0.1	21.4	1.0	0.1	0.8	62.0
Std. Error	0.1	0.7	1.9	1.6	0.9	0.1	<0.1	1.4	0.3	0.1	0.3	2.3
Female												
Sample Size		8		46	313		3	574	27	6	25	1,002
Percent		0.3		1.9	11.6		0.1	21.3	1.6	0.2	1.0	38.0
Std. Error		0.1		0.4	1.7		0.1	1.5	0.4	0.1	0.2	2.3
All Fish												
Sample Size	8	219	70	65	913	1	4	1,080	50	9	41	2,460
Percent	0.3	8.4	7.8	4.5	31.2	0.1	0.1	42.8	2.6	0.3	1.8	100.0
Std. Error	0.1	0.7	1.9	1.6	1.9	0.1	0.1	1.1	0.5	0.1	0.3	

□

Appendix E.1. Results of secondary marking study to test for short term tag loss for sockeye captured at the Canyon Island fish wheels, 1999

Stat. Week	Canadian Catch	Tags Recovered	Fishery Ratio	Examined for 2nd Marks	of 2nd Marks	Sample ratio	Sampled Ratio
26	764	29	0.038	200	1	0.005	0.033
27	4,343	95	0.022	200	0	0.000	0.022
28	5,562	177	0.032	402	8	0.020	0.012
29	662	33	0.050	225	7	0.031	0.019
30	2,541	83	0.033	225	1	0.004	0.028
31	2,375	97	0.041	220	6	0.027	0.014
32	1,190	66	0.055	200	4	0.020	0.035
33	1,049	52	0.050	206	7	0.034	0.016
34	614	16	0.026	194	3	0.015	0.011
35	943	54	0.057	199	3	0.015	0.042
Totals	20,043	702	0.040	2,271	40	0.017	0.023

Appendix E.2. Results of secondary marking study to test for short term tag loss for sockeye captured at the Canyon Island fish wheels, 2000

Stat. Week	Canadian Catch	Tags Recovered	Fishery Ratio	Examined for 2nd Marks	of 2nd Marks	Sample ratio	Sampled Ratio
26	980	65	0.066	200	0	0.000	0.066
27	3,518	120	0.034	200	0	0.000	0.034
28	2,211	175	0.079	200	0	0.000	0.079
29	3,249	158	0.049	190	0	0.000	0.049
30	5,094	151	0.030	200	0	0.000	0.030
31	731	24	0.033	200	7	0.035	-0.002
32	5,504	154	0.028	196	4	0.020	0.008
33	4,690	256	0.055	200	9	0.045	0.010
34	1,142	90	0.079	200	7	0.035	0.044
35	500	58	0.116	209	19	0.091	0.025
36	231	15	0.065	200	14	0.070	-0.005
37	92	3	0.033	19	0	0.000	0.033
Totals	27,942	1,269	0.666	2,214	60	0.296	0.369

Appendix E.3. Results of secondary marking study to test for short term tag loss for sockeye captured at the Canyon Island fish wheels, 2001

Stat. Week	Canadian Catch	Tags Recovered	Fishery Ratio	Examined for 2nd Marks	of 2nd Marks	Sample ratio	Sampled Ratio
25	2,117	39	0.018	220	5	0.023	-0.004
26	4,310	88	0.020	200	3	0.015	0.005
27	3,924	195	0.050	200	8	0.040	0.010
28	3,094	109	0.035	198	3	0.015	0.020
29	9,641	157	0.016	200	0	0.000	0.016
30	7,396	178	0.024	218	1	0.005	0.019
31	8,453	283	0.033	199	2	0.010	0.023
32	5,463	141	0.026	196	4	0.020	0.005
33	2,813	132	0.047	199	8	0.040	0.007
34	449	38	0.085	101	5	0.050	0.035
totals	47,660	1,360	0.035	1,931	39	0.022	0.014

Appendix E.4. Results of secondary marking study to test for short term tag loss for sockeye captured at the Canyon Island fish wheels, 2002

Stat. Week	Canadian Catch	Tags Recovered	Fishery Ratio	Examined for 2nd Marks	of 2nd Marks	Sample ratio	Sampled Ratio
25	1,869	62	0.033	200	14	0.070	-0.037
26	5,394	216	0.040	200	4	0.020	0.020
27	5,131	203	0.040	200	0	0.000	0.040
28	5,668	205	0.036	200	0	0.000	0.036
29	6,733	302	0.045	200	7	0.035	0.010
30	1,780	68	0.038	164	2	0.012	0.026
31	1,828	88	0.048	200	6	0.030	0.018
32	2,493	78	0.031	136	3	0.022	0.009
33	157	9	0.057	148	3	0.020	0.037
34	23	1	0.043	0	0	0.000	0.043
Totals	31,076	1,232	0.041	1,648	39	0.021	0.020

Appendix F.1. Results of regressions for pooled, paired MEF, POH, and CAH measurements for sockeye salmon captured at the Canyon Island fish wheels, 1998-2002.

MEF and CAF for Sockeye Salmon

Regression Statistics	
Multiple R	0.986094656
R Square	0.972382671
Adjusted R Square	0.972328306
Standard Error	11.07436498
Observations	510

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	2193597.352	2193597	17886.25	0
Residual	508	62301.91237	122.6416		
Total	509	2255899.265			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	1.89574355	4.010733489	0.472668	0.636653	-5.983923866	9.775410966	-5.98392387	9.775410965
X Variable 1	1.148147461	0.008584955	133.7395	0	1.131281071	1.16501385	1.131281071	1.16501385

Appendix G.1. Results of regressions for paired CAF and CAH measurements for sockeye salmon captured at the Canyon Island fish wheels, 1998.

CAH and CAF for Sockeye Salmon

Regression Statistics	
Multiple R	0.977741364
R Square	0.955978174
Adjusted R Sq	0.955894323
Standard Error	9.303833487
Observations	527

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	986877.1299	986877.1	11400.9	0
Residual	525	45444.69171	86.56132		
Total	526	1032321.822			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	35.95831561	4.15316443	8.658052	5.92E-17	27.7994641	44.11716712	27.7994641	44.11716712
X Variable 1	1.053397802	0.009865584	106.775	0	1.034016957	1.072778646	1.034016957	1.072778646